



Problem gambling : From practice research to grounded theory.

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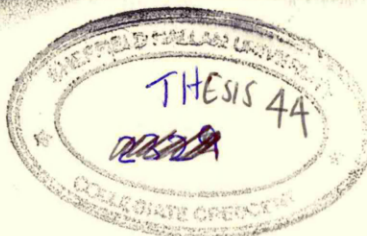
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Problem Gambling: From Practice Research to Grounded Theory

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A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
for the degree of Doctor of Philosophy

November 2001

Collaborating Organisation: Community Health Sheffield NHS Trust

ACKNOWLEDGEMENTS

I wish to thank my supervisory team, led by Dr Ann Macaskill and supported by Dr John Maltby and Professor Alec Jenner. Thanks also to the clinical team within the Psychotherapy Service in Sheffield who have been supportive throughout. Most of all thanks to Hilary Malden, whose support and patience enabled the completion of the work.

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ABSTRACT

This study combined the use of a single case experimental design with replications with the use of a grounded theory approach in a study of treatment-seeking problem gamblers. The sample for the single case experimental design was a case series of nine men meeting DSM IV criteria (APA 1994) for pathological gambling. They primarily gambled in off-course bookmakers and on slot machines, and had self-reported histories of problem gambling of between four and eighteen years duration. A cognitive behavioural approach to treatment based on that of Sharpe and Tarrier (1993) was utilised. This treatment incorporated motivational interviewing, self-monitoring, stimulus control, cognitive restructuring, cue exposure and relapse prevention. The approach was ineffective for a majority of the clients, with drop-out prior to completion of treatment the outcome for six of the clients. The three clients who completed treatment all achieved clinically significant changes in gambling behaviour. Proposed links between depressed mood and gambling behaviour, and anxiety and gambling behaviour were not supported.

The grounded theory approach was in two parts. The first study investigated the reported gambling experiences of treatment-seeking men who met DSM IV criteria (APA 1994) for pathological gambling. Clinical materials and session transcripts from the treatment study formed the initial material. A further four interviews with informants selected for theoretical sampling reasons provided provisional verification of the grounded theory. The grounded theory identified gambling as emotion management as the core category. The use of gambling for this purpose interacted with the costs of gambling and the individual's experience and perception of control of gambling to determine behaviour in the context of gambling related triggers.

The second grounded theory study involved an analysis of the reported experiences of seven regular but non-problematic gamblers for confirmatory purposes. Similarities and differences between the problem and non-problem gamblers were identified. Three aspects of the reported experiences of the gamblers appeared to differentiate problematic and non-problematic experiences. These were the extensive use of gambling to manage negative emotions, beliefs regarding winning money back and perception of control.

The study addressed both theoretical and treatment issues in problem gambling. The proposal that arousal is a major motivating variable in gambling was supported (Anderson and Brown 1984). The proposal that the use of gambling to moderate negative emotional states is a feature of problem gambling (Jacobs 1985; McConaghy 1988) was supported. The view that misperception of randomness is a feature of problem gambling was supported (Ladouceur and Walker 1996). The importance of self-efficacy in efforts at moderating gambling (Bandura 1977) was supported.

Clear benefits were identified of combining a single case experimental design with a grounded theory approach. The use of a grounded theory approach with a deviant sample for confirmatory purposes was also beneficial.

INTRODUCTION

Gambling is a familiar part of everyday life for people in Britain. A recent national survey identified that 72% of the adult population report having gambled in the past year, and 53% to have gambled in the week prior to interview (Sproston, Erens and Orford 2000). The National Lottery Draw is by far the most popular gambling activity, but there are multiple other gambling opportunities available. These include such popular forms as scratchcards, fruit machines, betting on horse and dog racing, casino games and bingo, amongst others. A further unregulated but popular form of gambling is private betting with friends (Sproston et al 2000).

Gambling is a rapidly developing industry across the English speaking world and throughout Europe (Abbott and Volberg 1999). From a position of high levels of restriction, some US states now have highly relaxed laws regarding the availability of casinos, lotteries and slot machines. Australia is said to have the heaviest annual per capita expenditure on gambling in the world, at \$800 Australian per head of the population (Productivity Commission 1999). Slot machine technology has seen the rapid expansion of gambling availability in the Netherlands, Spain and Italy (Abbott and Volberg 1999). Casino gambling is well established throughout Europe.

The UK has had, until recently, one of the most restrictive regulatory frameworks for gambling internationally, with the expressed purposes of the 1968 Gaming Act being that:

Permitted forms of gambling should be available to adults subject to regulation and control so as to prevent exploitation and criminality.

and

The demand for gambling should not be stimulated.

The National Lottery Act of 1993 allowed for the stimulation of demand for a form of gambling, and has resulted in a large expansion of gambling involvement (Grun and McKeigue 2000; Department for Culture, Media and Sport 2001). The recent National Gambling Review has proposed a significant deregulation of gambling regulation for adults, with stimulation of demand for many forms of gambling being allowed

(Department for Culture, Media and Sport 2001). Overall involvement in gambling is anticipated to rise as a result of these changes. However, overall involvement in gambling of all types by the British population is currently reported to be lower than in many similar countries (Sproston et al 2000).

The benefits to the state of this expansion of gambling activity are clear. Gambling taxation is a popular source of government revenue. In the United Kingdom, gambling turnover in 1998 was estimated to be £42 billion, resulting in direct taxation and duties of £1.53 billion, and a further £1.5 billion in National Lottery funds for good causes (Department for Culture, Media and Sport 2001). In contrast to these benefits, however, there is increasing recognition internationally of the associated social costs. These costs primarily come in the form of increases in the number of individuals who develop problems with gambling (Abbott and Volberg 1999; Productivity Commission 1999; Grun and McKeigue 2000). Definitions of problem gambling are contentious, bringing together as they do, medical, psychological and social perspectives (Productivity Commission 1999). The two most commonly utilised means of identification of individuals experiencing problems with gambling are the DSM IV criteria (American Psychiatric Association 1994), and the South Oaks Gambling Screen (SOGS) (Lesieur and Blume 1987). These operationalise problem and pathological gambling somewhat differently, but share common elements such as reported loss of control of the behaviour, and significant effects on relationships resulting from it. This will be discussed in the literature review. The DSM IV criteria produces somewhat lower estimates of the prevalence of problem and pathological gambling in community surveys than the SOGS, with the SOGS being argued by some authors to over-estimate the prevalence of pathological gambling (Productivity Commission 1999). The British Gambling Prevalence Survey (Sproston et al 2000) identified prevalence of problem gambling amongst the population aged 16 and over of 0.8% according to the SOGS and 0.6% according to DSM IV.

Overall then, gambling is a popular leisure activity which the majority of the British population indulge in. In common with many English speaking and European countries involvement in gambling has increased over the last ten years, with clear benefits to the state in the form of increased taxation, and National Lottery funds. For a small percentage of individuals gambling becomes disruptive to their functioning, and these individuals are

variously classified as experiencing problem or pathological gambling. It is within this context that the present study was undertaken.

The initial impetus to undertake this research came from the researcher's clinical work as a nurse behavioural psychotherapist. Whilst undertaking treatment with two individuals with gambling problems in 1992 and 1993, the researcher became aware of the relative lack of clinically relevant research with regard to treatment of problem gambling, and indications in the literature that a cognitive behavioural approach might be appropriate (Anderson and Brown 1984; Dickerson, Hinchy, Legg England, Fabre and Cunningham 1992; McConaghy, Armstrong, Blaszczyński and Allcock 1983; McConaghy, Armstrong, Blaszczyński and Allcock 1988; Sharpe and Tarrier 1993). Much of the research that had been undertaken on gambling seemed to have been undertaken because of the nature of problem gambling as an addiction without a substance (Dickerson 1989). The absence of clinical research was matched by an absence of treatment availability in Britain, with Brown and Fisher (1996) identifying just one NHS treatment resource specifically targeting gamblers. This situation has not altered over the last five years, with the National Gambling Review also identifying just one NHS treatment resource for gamblers (Department for Culture, Media and Sport 2001).

In this context the initial research question was: Can a cognitive behavioural intervention assist gamblers meeting criteria for pathological gambling to change their behaviour to a clinically significant extent? Additional questions related to the effects of sequential addition of different elements of treatment on gambling behaviour and gambling related urge strength. In addition the link between gambling behaviour, arousal and depressed mood was investigated. The treatment model that was developed and tested took as its starting point the model of Sharpe and Tarrier (1993). The cognitive behavioural model used identifies both cognitive distortions, and the aversive tension and arousal experienced by many individuals with gambling problems as important in the maintenance of the problem.

The choice of a single case experimental design with replications was considered appropriate for a number of reasons. As a research approach largely deriving from the behavioural tradition (Barlow and Hersen 1984), it reflected the researcher's belief that

individual variability in response is an important aspect of treatment evaluation which is lost within larger scale randomised controlled trials (Hersen 1990). In addition there were ethical considerations with regard to the appropriateness of undertaking a large-scale evaluation of an approach not shown to be effective at the level of the individual (Barlow and Hersen 1984; Hersen 1990). The single case experimental method provided an opportunity for the rigorous evaluation of a novel treatment approach with a small number of individuals. If shown to be effective at the level of the individual, the logical progression for the study would have been a move to a randomised controlled trial. In the event, the failure to show effectiveness at the level of the individual meant that such a move was not appropriate. In this context the decision was made to expand upon the planned qualitative analysis of data to make this the major part of the study.

The second part of the study utilised a grounded theory approach (Glaser and Strauss 1967; Strauss and Corbin 1990) to investigate client experiences of gambling. The focus of this aspect of the study has been on the experiences of treatment-seeking gamblers. Two sources of data have been utilised for this purpose. Firstly, clinical materials and transcripts of clinical sessions from the clients involved in the single case experimental design have been analysed. Then analysis of interview data from four further treatment-seeking gamblers selected for theoretical sampling reasons (Morse 1991; Silverman 2000) has been undertaken. The constant comparative method of grounded theory (Glaser and Strauss 1967; Strauss and Corbin 1990) has resulted in the development of a complex theoretical formulation which encompasses the similarities and differences between different gamblers' experiences.

The third part of the study sought to test the grounded theory developed from the analysis of information from treatment-seeking individuals. This involved a further grounded theory approach being taken with informants who were regular gamblers and reported no difficulties with gambling. The proposed differences between the behaviours and beliefs of problem and non-problem gamblers were the focus of this part of the study. This approach represents the use of a deviant sample to evaluate the grounded theory previously developed (Silverman 2000), and is an extension of theoretical sampling (Strauss and Corbin 1990).

The final part of the thesis relates the findings of this study to theoretical perspectives regarding gambling and treatment approaches reported in the literature.

Throughout the study the researcher has taken what is termed by Lincoln and Guba (2000) a postpositivist perspective on the research endeavour. This views social science as a process of seeking to apprehend the nature of reality and the laws governing behaviour, whilst acknowledging that the complexity of the nature of human activity is such that any such apprehension will be partial and provisional. The consistency of this postpositivist perspective is important in understanding the clear thread of enquiry running throughout the study. The alternative ways in which the grounded theory method can be approached are discussed in Section 3.

The focus throughout the study has been on the gathering of clinically relevant information that can be fed back into clinical work with individuals experiencing problems with gambling, so that those individuals can be more effectively helped.

Plan of the Thesis

The thesis begins with a critical review of the psychological and treatment literature pertinent to problem gambling. This review contrasts the behavioural and cognitive models which have been developed, and notes efforts at the integration of these perspectives. Section Two outlines the single case experimental design with replications. Following an outline and discussion of method the results from the nine research clients are presented. The discussion of the results concludes with the rationale for the use of a grounded theory approach in the next part of the study.

Section Three outlines the use of a grounded theory approach to develop an understanding of treatment-seeking gamblers' experiences of gambling. The methodology is outlined and discussed in relation to the research questions being addressed. Results from the grounded theory approach are then presented. Finally, this section includes a discussion of the results and the method utilised. A statement of the researcher's theoretical orientation is included in this discussion, together with the way in which this was managed to enhance the research process.

Section Four outlines the grounded theory approach to developing a contrasting understanding of regular non-problem gamblers' experiences of gambling. The methodology is outlined and discussed. Results of the analysis are then presented. Section Four concludes with a discussion of the methodology and results of the grounded theory analysis, and outlines a proposal regarding the transition from regular gambling to problem gambling. The research process is reflected upon.

Following a reflection on the research process Section Five highlights the theoretical and clinical implications of the study results as a whole. Implications for further research are considered. Finally, conclusions from the study are identified.

This chapter will review the literature relating to psychological models of gambling, focus specifically on aspects related to the development and maintenance of excessive gambling, and outline clinical research into the treatment of problem gambling.

Hypotheses regarding the process of change in therapy deriving from the different models will be summarised and linked to the evaluation of the cognitive behavioural treatment for problem gambling.

The heterogeneous nature of gambling activities

Gambling can be defined as the placing of material wagers on the outcomes of events not predetermined (Griffiths 1997), and is a common activity in many cultures. The term gambling encompasses a wide range of activities, from the purchase of a lottery ticket for a weekly national draw, to the selection of horses in an off-course bookmakers, to playing cards in a casino. For the vast majority of gamblers the activity is enjoyable and unproblematic. However for a percentage of gamblers, the behaviour develops to be problematic, leading to pre-occupation with gambling, the amassing of debts, and often threats to relationships and livelihood (Productivity Commission 1999; Department for Culture, Media and Sport 2001).

Gambling behaviours vary on a number of criteria. Such criteria, termed structural characteristics by Weinstein and Deitch (1974) include factors such as the time delay between betting and the result and the extent of skill involved in the gambling activity. Environmental factors and the nature of the event being gambled upon may also contribute to the extent of likely gambler involvement in any particular form of gambling. Table 1 gives examples of structural characteristics.

Certain structural characteristics of gambling have been utilised to differentiate between “hard” and “soft” forms of gambling (Home Office 1996). The types of gambling considered most likely to lead to excessive involvement are those which include a high payout ratio, rapid event frequency, likelihood of perception of skill, and opportunity to view the behaviour as attractive, intrinsic association (Griffiths 1995a; Home Office 1996). “Hard” forms of gambling include slot machines, betting on horse or dog racing, casino games and some forms of bingo (Griffiths 1997).

Table 1.

Structural characteristics of gambling activities (Weinstein and Deitch 1974, Griffiths 1995a)

Structural Characteristic	Description
Multiplier potential	The extent to which gambles can be varied to allow a variety of odds and / or stake levels to be utilised.
Pay-out interval	The time between the event of winning and receiving payment.
Event frequency	The frequency of opportunities to gamble.
Better involvement	The extent to which gamblers are, or see themselves as actively involved in the process of gambling.
Skill required	An objective assessment of the extent of skill involved in a particular form of gambling. Gamblers will also have a subjective view of this.
Win probability	The probability of any specific gambler winning an individual bet.
Pay-out ratio	The ratio between the stake and the winning pay-out.
Intrinsic association	The extent to which the gambling activity is associated with another activity which has its own interest and enjoyment.
Suspension of judgement	The disruption of the gambler's financial value system, e.g. use of chips or tokens instead of cash.

Common psychological features of gambling

A number of features of gambling activities have been identified which appear to relate to all gamblers. These features are reflected in the structural characteristics of gambling noted above. Clearly, gambling opportunities, in order to be commercially viable will take account of factors likely to lead individuals to commence gambling and continue gambling once started. Psychological features discussed here will relate to operant and classical conditioning aspects of gambling, and aspects related to the development of biased cognitions regarding gambling.

Operant and classical conditioning

The financial consequence of gambling, specifically the experience and predicted future occurrence of winning is the most obvious factor which may contribute to the maintenance of the behaviour. Usually, even after only a few attempts at gambling, the individual will experience a win. However, the rate at which further wins will occur is largely out of the individuals control. From a behavioural perspective, the operant is the behaviour of placing a stake on a form of gambling, and the financial rewards consequent on a win are a variable frequency reinforcement schedule (Skinner 1953; Anderson and Brown 1984), a schedule which is known to produce behaviours which are highly resistant to extinction. Dickerson et al (1992), studying high frequency slot machine players found significant support for the behavioural effect of both small and large wins. Small wins elevated play rates, whilst larger wins (over 50 credits) disrupted otherwise very regular rates of play. Only weak effects were found for the cognitive mediation of the behaviour. A replication of this study by Delfabbro and Winefield (1999) using enhanced technology to reduce researcher effects again found that the behaviours of regular slot-machine gamblers were highly sensitive to machine events. Small wins elevated play rates and stakes, whilst larger wins again disrupted otherwise regular rates of play in the form of post-reinforcement pauses. Occasional slot-machine gamblers evidenced less consistency in their behaviour. The behaviour of the gamblers did not appear to be mediated by expectancies of outcomes.

A second important aspect of gambling that has been researched more thoroughly, is the commonly reported experience of increased autonomic arousal during gambling which is interpreted as excitement (Griffiths 1995a). Repeated association of the gambling environment with excitement is proposed to lead to the classical conditioning

of the response. As a result, the more an individual gambles, the more this increased arousal is experienced (Anderson and Brown 1984). This represents the introduction of a second, continuous, reinforcement schedule. Arousal has been investigated in casino blackjack players (Anderson and Brown 1984), slot machine players (Leary and Dickerson 1985; Dickerson et al 1992, Griffiths 1993) and off-course horse race bettors (Coventry and Norman 1997). Despite findings in the majority of studies that heart rate increases during gambling, the studies by Anderson and Brown (1984), Leary and Dickerson (1985) and Griffiths (1993) all utilised baselines taken during a period of relaxation prior to involvement with the gambling task. The results could therefore have been confounded by the effects of physical activity involved in the act of gambling. Dickerson et al (1992) controlled for these effects by taking baseline measures whilst the subjects were in the vicinity of the machines, and not purposefully relaxed. They reported no significant increase in heart-rate, but identified that the baseline measure may have been raised as a result of the individual being in sight of the machine. Coventry and Norman (1997) controlled for the effects of exercise and vicinity of the gambling environment, and confirmed significant increases in heart rate during the act of gambling. Support for the strengthening of the effect as gambling frequency increases has also been mixed. Anderson and Brown (1984) and Leary and Dickerson (1985) found support for the hypothesis that high-frequency gamblers would experience greater heart rate increases during play than low-frequency gamblers, but this finding has not been replicated in a number of studies (Dickerson et al 1992; Griffiths 1993), including the more methodologically robust study by Coventry and Norman (1997).

A further aspect of the behavioural model is that of the negative reinforcement associated with the commencement of gambling. This may result from aversive tension or negative mood states being altered through commencement of gambling. In line with other addictive behaviours, the DSM IV (American Psychiatric Association (APA) 1994) criteria for pathological gambling propose a withdrawal phenomenon as one of the defining features:

Is restless or irritable when attempting to cut down or stop gambling (APA 1994 p. 618)

Empirical support for this phenomenon is slight, largely taking the form of retrospective self-reports (Rosenthal and Lesieur 1992), but it has been forwarded as an explanation for the efficacy of treatment programmes focusing primarily on reducing aversive tension (McConaghy et al 1988). According to this model, habitual

undertaking of a behaviour leads to a neurologically based increase in arousal on contact with cues previously associated with the behaviour. This arousal is experienced as aversive, and is associated with a subjective compulsion to undertake the act (McConaghy 1988; McConaghy et al 1988). The use of clinical outcome studies to support such a model has been argued to be somewhat circular, in that the treatment approach could be explained as affecting self-efficacy via cognitive rehearsal (Dickerson 1989; Sharpe and Tarrier 1993). However, subjective withdrawal experienced as aversive tension appears to be important for a sub-group of gamblers (Rosenthal and Lesieur 1992).

The role of negative mood states in the commencement of gambling behaviour again features in DSM IV as a diagnostic criteria for pathological gambling:

Gambles as a way of escaping from problems or of relieving a dysphoric mood (e.g. feelings of helplessness, guilt, anxiety, depression) (APA 1994 p. 618)

Sharpe and Tarrier (1993) proposed that depressed mood may both result from and trigger gambling in some individuals. Again there is little empirical evidence for this contention, although it is commonly reported clinically (Oakley-Browne, Adams and Mobberley 2000). Griffiths (1995b), in a study of sixty slot machine gamblers, eighteen of whom met DSM III-R diagnostic criteria for pathological gambling (APA 1987), found that significantly greater numbers of regular and pathological gamblers reported feeling fed up/depressed before commencing gambling, than did the non-regular gamblers. This study suffered from a weak operational definition of the emotional states being studied. Trevorrow and Moore (1998) compared women who had gambling problems with women who did not gamble, and with those who gambled regularly but unproblematically. Women classified as having gambling problems were significantly more likely to report being lonely, in the sense of being alienated from others rather than friendless, in contrast to both other groups. They utilised the UCLA Loneliness Scale (Russell, Peplau and Cutrona 1980), a well validated and reliable measure of loneliness, and a sample none of whom were seeking treatment. The author's noted that whether problem gambling or loneliness occurred first was not possible to ascertain from their study design.

An important distinction may be made here between factors related to the commencement of a session of gambling, and its continuation. For some gamblers "the buzz" is reported to be a major motivator to commence gambling (Moody 1990). For

others, the reduction of aversive tension (McConaghy 1988) or the mood elevating effect of gambling may be being utilised as an inappropriate problem solving approach (Griffiths 1995b). Once gambling has commenced, however, other factors such as the variable frequency reinforcement schedule related to winning money noted above (Dickerson et al 1992; Delfabbro and Winefield 1999), and cognitive aspects may become more significant.

Cognitive perspectives

Biased cognitions regarding gambling have been investigated more recently. Four common types of biased cognitions in gamblers have been identified by Ladouceur and Walker (1996). These are the illusion of control (Langer 1975), superstitions, biased evaluations of outcomes, and errors in understanding randomisation. Langer (1975) defined the illusion of control as “an expectancy of a personal success probability inappropriately higher than the objective probability would warrant” (Langer 1975 p.313). In a series of experiments, she found support for the view that, to the extent that the gambling activity mimicked a skill related activity, the individual gambler perceives him/herself as much more able to effect the outcome of an unpredictable event than is actually the case. The perceived skill, rather than the actual element of skill, affected confidence in choices made. In a series of experiments with individuals who were not regular gamblers (Ladouceur, Tourigny and Maynard 1986; Ladouceur, Maynard and Tourigny 1987; Gaboury and Ladouceur 1989; Walker 1992), evidence was provided that increasing familiarity with a particular gambling activity (roulette or slot machine play) increased perceived skill, and increased the frequency of erroneous cognitions, as indicated by the “think aloud” method. These findings were argued to indicate that the behaviour of gambling induced the cognitive distortions. Significantly, in the Walker (1992) study, there were clear discrepancies between subjects stated views, before and after play, that slot machine play was largely a matter of chance, and the high frequency of statements indicating some gambler effect on the outcome during play. This series of studies utilised student populations who were not regular gamblers, limiting the generalisability of the findings. However, in a study of the strategies utilised by regular gamblers to increase their chances of winning, Toneatto, Blitz-Miller, Calderwood, Dragonetti and Tsanos (1997) reported that a large majority of individuals reported utilising active control strategies which were identified as illusory.

Superstitions are argued by Ladouceur and Walker (1996) to relate to the illusion of control in an idiosyncratic way. Frequent gamblers will often undertake regular activities unrelated to the outcome of the play, with the express purpose of effecting the result of the play. Behaviours, such as holding lucky coins, always changing money in set amounts, or undertaking a repetitive behaviour prior to play can be considered superstitious. In line with the illusion of control, it would be expected that superstitious behaviours would increase perceived control, and therefore extend play, even in the presence of losses. In a study reported by Ladouceur and Walker (1996), the effects on slot machine play of allowing, or banning identified superstitious behaviours in players who played at least one or two times a week for at least an hour on each occasion. As predicted, players in the permitted superstitious behaviour condition played for longer, entered more coins, won more coins and played more games. There was no significant difference in the amount of money lost. Full details of the study were not provided.

Biased evaluation of outcomes relates to the tendency of gamblers to perceive wins as skill related, leading to further gambling in order to win more, and losses as attributable to chance, or even as precursors to further wins (Legg England and Gotestam 1991; Ladouceur and Walker 1996). This was termed a flexible attribution heuristic by Wagenaar (1988), who contrasted rational decision making within gambling, with regular gamblers' actual decision making. Heuristics are argued to have the effect of reducing the individual's perception of uncertainty in gambling, and would also include systematic errors in understanding of randomisation. In their study of regular gamblers Toneatto et al. (1997) reported the use of a wide range of cognitive distortions to explain their specific skills.

Errors in understanding randomisation are thought to be relevant in what has been termed the "gamblers fallacy" (Ladouceur and Walker 1996). Gamblers are reported to commonly predict the outcome of random events based on the sequence of results of previous random events. Specifically Ladouceur and Walker (1996) reported a study in which individuals were asked to generate random sequences of binary events. Analysis of decision-making utilising the think-aloud method identified that the main error was an inability to apply the principle of independence between events. That is, in not recognising that random sequences do not involve prior events affecting the likelihood of occurrence of future events. Other studies reported by Ladouceur and Walker (1996) provide further support for this view, in non-gambling situations. There remains a lack

of empirical evidence supporting the importance of failure to understand randomness in problem gambling, with neither Griffiths (1990) or Toneatto et al (1997) identifying this aspect in regular gamblers. Despite this, correction of misperception of randomness has been a central element of treatments developed by the Ladouceur group (Sylvain, Ladouceur and Boisvert 1997), with good results being reported. Ladouceur and Walker (1996) claim that the failure to understand the nature of random events is linked to biased evaluation of outcomes and perception of skill in that the individual will predict events correctly occasionally, by chance. Selective attention to these successes will then tend to inflate the significance of these events in the face of continuing unpredictability, and failure to predict subsequent patterns.

Research into the biased cognitions approach has been criticised for a number of reasons. Firstly, the studies outlined above have mainly utilised college students who were not regular gamblers. Secondly, they have tended to rely on small samples of individuals who undertook the experimental manipulation within laboratory settings, affecting the ecological validity of the studies (Dickerson et al 1992). Studies that have found support for the cognitive model with a population of regular gamblers are those of Griffiths (1990) with adolescent gamblers, and Toneatto et al (1997) with adults. Clearly further studies with regular gamblers in gambling environments are required to test the models.

The validity of introspection utilising the 'think aloud' method to access cognitive processes has also been questioned (McCusker and Gettings 1997). Because gambling can become an overlearned, repetitive behaviour, McCusker and Gettings (1997) argue that cognitive processes and judgements may become automatic, and therefore outside of conscious awareness and volitional control. As with anxiety disorders, which it has been argued may be associated with the operation of automatic information processing biases (Mansell 2000), attentional and memory biases have been proposed for addiction-related constructs (Tiffany 1990). This would then have important implications for treatment in terms of strategies to access those biases.

McCusker and Gettings (1997) utilised a modified Stroop paradigm (Warren 1972) involving the colour naming of 40 gambling-related, 20 drug-related and 20 neutral words. Subjects were 15 male problem gamblers, their spouses, and an infrequent gambling control group. The problem gamblers included sub-groups who gambled

exclusively on fruit-machines or racing. The drug-related words were included to control for the general emotional valence of the gambling words. The spouses of the problem gamblers were included to control for general emotional response to the gambling related words. Findings indicated a significantly greater gambling Stroop interference effect for the gamblers in contrast to both their spouses and the control group. Interestingly, Stroop interference effects for the fruit-machine and racing sub-groups were significantly greater for their specific gambling activity. This study provided good initial support for the hypothesis that pathological gambling is associated with automatic and non-volitional cognitive biases for gambling related information.

Pathological and problem gambling

Pathological gambling was classified as a mental disorder by the American Psychiatric Association (APA) in 1980, with explicit diagnostic signs and symptoms. Currently, both ICD10 (World Health Organisation 1992) and DSM IV (APA 1994) classify pathological gambling as an impulse control disorder. Examples of other impulse control disorders are eating disorders, and paraphilias. See table 2 for DSM IV diagnostic criteria.

The medicalisation of the behaviour of gambling that the adoption of the DSM IV (APA 1994) criteria represents has been criticised by some researchers who consider that it introduces a spurious distinction between the behaviours of "normal" and "excessive" gamblers (Brown 1987a, Knapp and Lech 1987, Dickerson 1989, Productivity Commission 1999, Dickerson and Baron 2000). It has been argued that pathological gambling simply represents the end of a continuum of behaviours which also includes occasional, regular, heavy and problem gambling. The favoured terminology to describe problems with gambling vary internationally, with the Australian Productivity Commission noting the acceptance of the term pathological gambling in the US and New Zealand, but its almost complete rejection in Australia (Productivity Commission 1999). In terms of studying problem gambling, the DSM IV (APA 1994) criteria and the South Oaks Gambling Screen (SOGS) (Lesieur and Blume 1987) are the most commonly utilised instruments to determine the extent of the difficulties which those seeking treatment are encountering.

Table 2.

DSM IV criteria: Pathological gambling

- | |
|---|
| <p>A. Persistent and recurrent maladaptive gambling behavior as indicated by five (or more) of the following:</p> <ul style="list-style-type: none">(1) is preoccupied with gambling (e.g. preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)(2) needs to gamble with increasing amounts of money in order to achieve the desired excitement.(3) has repeated unsuccessful efforts to control, cut back, or stop gambling(4) is restless or irritable when attempting to cut down or stop gambling(5) gambles as a way of escaping from problems or of relieving a dysphoric mood (eg feelings of helplessness, guilt, anxiety, depression)(6) after losing money gambling, often returns another day to get even (“chasing one’s losses”)(7) lies to family members, therapists, or others to conceal the extent of involvement with gambling(8) has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling(9) has jeopardized or lost a significant relationship, job, or educational opportunity because of gambling(10) relies on others to provide money to relieve a desperate financial situation caused by gambling <p>B. The gambling behavior is not better accounted for by a Manic Episode.</p> |
|---|

As can be noted from the diagnostic criteria, despite being labelled an impulse control disorder, DSM IV defines pathological gambling in very similar ways to substance misuse problems, with specific tolerance (criteria 2) and withdrawal (criteria 4) features, together with cognitive-affective, behavioural self-control and social impact criteria. The heterogeneity of the diagnostic criteria has been criticised for being over-inclusive, and thereby likely to lead to quite different types of presentation with regard to the behaviour of gambling being similarly classified (Dickerson and Baron 2000). The SOGS scoring questions, in contrast, being validated against DSM III-R (APA 1987) focus primarily on behavioural self-control and social impact criteria.

Unsurprisingly, given the use of varied criteria and thresholds, estimates of the prevalence of problem gambling in the general population vary internationally (Sproston et al 2000). The British Gambling Prevalence Survey (Sproston et al. 2000) utilised both the SOGS and DSM IV criteria to identify the extent of gambling problems in the British population. A random sample of 7,000 households in Britain was utilised, with all individuals over 16 being asked to respond to the questionnaire. Results were weighted for age and sex to ensure representativeness. A threshold for “problem gambling” was utilised of a score of 5 or above on the SOGS, and 3 or above on the DSM IV. Utilising these criteria, the study found a prevalence of problem gambling of 0.8% according to the SOGS and 0.6% according to the DSM IV. Reported British prevalence was lower than for Australia (2.3%), the United States (1.1%), New Zealand (1.2%) and Spain (1.4%), but higher than Sweden (0.6%) (Sproston et al 2000).

In the British Gambling Prevalence Study (Sproston et al 2000), prevalence of problem gambling reduced as age increased according to both the DSM IV and SOGS. This supported the findings of a survey of a representative sample of 9,774 twelve to fifteen year olds in England and Wales (Fisher 1998), which found a prevalence of gambling problems of 5%. This survey utilised a revised youth version of the DSM IV criteria, the DSM IV-J-R (Fisher 1992; Fisher 1998), and a threshold score of 4. The most common form of gambling for the individuals identified as problem gamblers was on fruit machines only (62%), whilst a further group reported problems with gambling on National Lottery scratchcards only (17%). A third group reported problems with both fruit machines and National Lottery scratchcards (21%). It should be noted that it is

illegal for under-16s to purchase National Lottery scratchcards, but legal for them to play on many forms of fruit machines.

Incidence of problem and pathological gambling is reported to increase as availability of legalised gambling increases (Walker and Dickerson 1996). Grun and McKeigue (2000) have provided evidence from the Family Expenditure Survey (Office for National Statistics 1996) that overall spending on gambling in Britain has increased following the introduction of the National Lottery, and that this parallels an increase in the number of people who are gambling excessively, defined as those households gambling more than ten percent of their income (Grun and McKeigue 2000). This increase does not appear to be as a result of individuals experiencing problems with control regarding the National Lottery Draw itself, as the prevalence of individuals reaching the threshold for problem gambling whilst reporting the National Lottery Draw as their only gambling activity was 0.1% in the British Gambling Prevalence Survey (Sproston et al 2000). This is unsurprising given the structural characteristics of the National Lottery Draw, with low event frequency, and low likelihood of a skill orientation being developed. However, one of the impacts of the National Lottery in Britain has been increasing pressure for deregulation of other “harder” forms of gambling (Griffiths 1997), and increases in gambling involvement may have followed those changes. Further deregulation of gambling is proposed within the National Gambling Review (Department for Culture, Media and Sport 2001). This is likely to have the effect of widening the availability of gambling opportunities for adults. Legal opportunities to gamble for the under-18s are to be further restricted.

Given the British prevalence of pathological gambling it represents a significant psychological and social problem. Pathological gambling is reported to be associated with high rates of depression, alcoholism and other substance misuse (Crockford and el-Guebaly 1998), and suicide attempts have been reported by as many as 13% of one sample of members of Gamblers Anonymous (Frank, Lester and Wexler 1991). As Crockford and el-Guebaly (1998) note, however, the utilisation of treatment seeking individuals in many of the reported studies may introduce sampling bias, as pathological gamblers may be more likely to seek treatment if they have other comorbid mental health problems. Pathological gambling has a significant negative impact on social relationships, with lying to cover up gambling, the use of all available moneys, non-payment of bills, the amassing of debts in joint names, and the blaming of

the spouse for their behaviour commonly reported (Dickerson 1989; Productivity Commission 1999). In addition, criminal behaviour is associated with pathological gambling. Meyer and Stadler (1999) found that 89.3% of pathological gamblers in treatment admitted having committed at least one crime during their lifetime compared to 51.8% of controls. Brown (1987b) found crime rates of between 77 and 82 % and conviction rates of between 40 and 70 % in a British sample of members of Gamblers Anonymous.

Development of problem gambling

A remaining question following from the literature is why some individuals develop problem gambling, if, as proposed, conditioning aspects of gambling and the development of cognitive distortions are common to all gamblers? The extent of theorising with regard to this issue has not been matched by research activity. Proposals have tended to relate to a hypothesised general predisposition to develop addictive behaviours (Jacobs 1985; Brown 1997), models resulting from qualitative studies of the developing nature of gambling problems (Lesieur 1977; Custer 1982; Lesieur and Custer 1984), or narrower models espousing coping skills deficits (Sharpe and Tarrier 1993; Dickerson and Baron 2000).

Jacobs (1985) in his General Theory of Addiction, proposed that certain personality characteristics resulting from negative childhood experiences associated with feelings of inadequacy, inferiority and low self-esteem would interact with abnormal physiological resting states of hyper or hypo-arousal to make individuals vulnerable to addictions, including gambling. Once having experienced the emotion altering effects of gambling or other addictions, individuals with such a vulnerability may 'specialise' in the behaviour to the extent that it becomes their main means of management of hedonic tone (Jacobs 1985; Brown 1997).

There is some support for this hypothesis. A majority of treatment seeking pathological gamblers in an Australian sample met diagnostic criteria for personality disorders, specifically those associated with impulsivity (Blaszczynski and Steel 1998), and there are a reported sub-groups of pathological gamblers who meet antisocial personality disorder criteria (Crockford and el-Guebaly 1998). The existence of comorbidity does not necessarily support a causation hypothesis, however. A sub-group of gamblers are

reported to experience dissociative-like states (Jacobs 1988; Diskin and Hodgins 1999), but evidence is restricted to retrospective self-report, utilising a structured questionnaire. As noted above, Trevorrow and Moore (1998) found that women with gambling problems were significantly more likely to report being lonely than a control group who gambled unproblematically.

It may be that there are a sub-group of pathological gamblers who meet Jacobs (1985) model, but it appears that problem gamblers are a somewhat heterogeneous group, reducing the likelihood that a single model would fit all (Blaszczynski 2000).

Lesieur (1977) and Custer (1982), conducting research independently of each other outlined similar descriptive models of the phases in the 'career' of a pathological gambler. These are termed the winning phase, the losing phase and the desperation phase (Lesieur and Custer 1984). They describe a process whereby the winning phase starts in adolescence and involves initial small but successful bets, followed by increasingly 'skilful' gambling leading to larger wins. A big win then leads the gambler to believe that he or she can repeat the experience. The losing phase then consists of betting in an unrealistic manner in an attempt to repeat the experience of the big win, this being associated with the behaviour of 'chasing losses'. This involves the gradual increasing of bets, and preoccupation with gambling and the big win, as a means to resolve the financial difficulties resulting from repeated losses. Relationship problems and criminal behaviour may result, with the gambler becoming increasingly alienated from those around them. This cycle results in the reported third stage, the desperation phase. Here the gambler is increasingly alienated from those around him or her, is using gambling in a last ditch effort to repay debts, and eventually finds that, with no options left, depression and thoughts of suicide may occur. It is at this point that the gambler is reported to be likely to seek treatment.

Lesieur (1977), in his qualitative study of gambling amongst Gamblers Anonymous members and other regular gamblers, identified two central features of problem gambling as chasing, the range of behaviours associated with attempting to recover previous losses, and action, the whole range of processes associated with gambling, not just the gamble itself. The processes of compulsive gambling were reported to result from the seeking after action, and the chase to recoup losses.

The Lesieur (1977) study is a good example of a qualitative study of the nature of pathological gambling in the population studied, and, together with the phases model (Custer 1982; Lesieur and Custer 1984) it has been influential on clinicians' understanding of the nature of gambling problems. However, whilst action and chasing remain elements of current diagnostic criteria (APA 1994), the contention that a 'big win' is central to the development of problem gambling has found limited subsequent empirical support (Griffiths 1995a).

Sharpe and Tarrier (1993) argue for the importance of lack of coping skills as an indicator of the likelihood of developing gambling behaviour to excess. The classical conditioning of both external (vicinity of gambling environment, being paid), and internal (thoughts about gambling, autonomic arousal) cues to arousal and urges to gamble require coping skills to control subsequent behaviour. Coping skills proposed by Sharpe and Tarrier (1993) to be helpful in controlling urges to gamble include the ability to control autonomic arousal, challenge irrational gambling related cognitions, delay reinforcement, and utilise problem-solving skills to deal with the cues.

Indirect evidence to support this contention comes from the reported high rates of personality disorder, specifically those associated with impulsivity, amongst treatment seeking pathological gamblers (Blaszczynski, Steel and McConaghy 1997; Blaszczynski and Steel 1998). Research into the specific coping skills deficits has not been reported, although treatment studies discussed below have variously focused on reducing gambling related arousal (McConaghy et al 1988), challenging gambling related cognitions (Sylvain et al 1997) or introducing cue exposure, response prevention to urges to gamble (Echeburua, Baez and Fernandez-Montalvo 1996). The Sylvain et al (1997) study also included problem-solving training.

Sharpe and Tarrier (1993) argue that the failure to develop the necessary coping skills may be as a result of environmental or biological factors. Biological factors may relate to the issue of Attention Deficit Hyperactivity Disorder (ADHD), whilst environmental factors would represent the absence of opportunity to learn appropriate skills.

Reviewing the research linking ADHD with pathological gambling, Crockford and el-Guebaly (1998) identify only weak support. Studies have utilised retrospective self-reports of childhood behaviour, finding strong correlations between pathological

gambling in the adults and childhood behaviours associated with ADHD. However, sampling problems, and reliance on retrospective self-report were reported to weaken the studies. One recent prospective study (Vitaro, Arseneault and Tremblay 1997), reported that impulsivity in 754 thirteen year old boys, measured utilising both the Eysenck Impulsiveness scale (Eysenck and Eysenck 1978) and teacher ratings, predicted the extent of gambling and problem gambling four years later.

The reported high incidence of problem gamblers amongst the parents and siblings of excessive gamblers is one environmental variable which may limit opportunities to learn coping skills (Sharpe and Tarrier 1993).

Dickerson and Baron (2000) have argued for the focusing of future gambling research on the issue of self-control. They highlight the conceptual confusion regarding the concept of pathological gambling, particularly the focus on the social impact of gambling within the diagnostic criteria (APA 1994). They argue that a focus on the multiple factors leading to reduced self-control would enable a better understanding of a source of the social impacts, and a link to mainstream psychological research. Within the Dickerson and Baron (2000) proposal extent of self-control is defined as the erosion of a person's ability to control their time and money expenditure on gambling. Potential causative factors associated with this erosion which could be investigated include personality factors, level of involvement in gambling, coping competencies and social support, in addition to the impact of both negative and positive emotions before, during and after gambling. The Dickerson and Baron (2000) paper, therefore, draws together a number of the different hypothesised factors regarding the development and maintenance of problem gambling.

Treatment

Treatment approaches to pathological gambling have largely been based on approaches borrowed from the substance abuse field (Dickerson 1989). Specifically, Gamblers Anonymous was modelled directly on the older Alcoholics Anonymous, and shares many of the latter's philosophical positions, as well as similar methods and goal, total abstinence (Stewart and Brown 1988). Treatment approaches deriving from behavioural and cognitive behavioural models have been reported more recently

(McConaghy et. al. 1988; McConaghy, Blaszczyński and Frankova 1991; Echeburua et al 1996; Sylvain et al 1997; Echeburua, Fernandez-Montalvo and Baez 2000).

Gamblers Anonymous

Gamblers Anonymous promotes an illness model which defines compulsive gambling as a lifelong, uncontrollable problem. They state categorically that compulsive gamblers differ from other gamblers in never being able to gain control of their gambling behaviour, and that attempts to do so for the "real" compulsive gambler will inevitably fail (Moody 1990). The Twelve Step Recovery Programme promoted by Gamblers Anonymous follows from this position. It involves an acknowledgement of powerlessness, a decision by the individual to turn their will over to a "Power greater than ourselves", an inventory of themselves, the making of amends to those harmed, and the practice of moral behaviour (Gamblers Anonymous undated).

Limited outcome data are available regarding the effectiveness of Gamblers Anonymous in assisting problem gamblers. Taking Gamblers Anonymous own criteria of total abstinence as a guide, Stewart and Brown (1988), in a study of 232 attenders at groups of Gamblers Anonymous found that total abstinence from gambling was achieved by eight percent of all attenders at one year, and seven percent at two years. Forty seven percent of attenders dropped out before their fourth meeting. Interpreting these results in the absence of adequate comparison data is difficult, but as Stewart and Brown (1988) point out, they indicate an urgent need for the researching of alternative treatments for those who do not wish to take up, or do not benefit from, the Gamblers Anonymous approach.

Behavioural and cognitive treatments

To date the development of alternatives to Gamblers Anonymous has been limited. The literature contains only four controlled treatment outcome studies (McConaghy et al 1988; McConaghy et al 1991; Echeburua et al 1996; Sylvain et al 1997). Two of these studies compared imaginal desensitisation with other behavioural treatments, specifically imaginal relaxation, aversion therapy and in-vivo exposure (McConaghy et. al. 1988; McConaghy et al. 1991). The third compared stimulus control and cue exposure with group cognitive restructuring and a waiting list control (Echeburua et al 1996), the fourth a cognitive behavioural approach with a waiting list control (Sylvain et al. 1997). Four further studies have evaluated cognitive behavioural approaches

within multiple baseline across persons single case experimental designs (Bujold, Ladouceur, Sylvain and Boisvert 1994; Ladouceur, Boisvert and Dumont 1994; Ladouceur, Sylvain, Letarte, Giroux and Jacques 1998) or single case experimental designs with replications (Symes and Nicki 1997).

McConaghy et al (1991), comparing imaginal desensitisation with other behavioural treatments, found both short-term and long-term outcome data favoured imaginal desensitisation. All treatments were carried out as part of a five-day inpatient programme.

Imaginal desensitisation is viewed by McConaghy et al.(1991) in the context of a "behaviour completion mechanism" explanation of problem gambling. This theory suggests that once gambling-related situations are encountered, a pattern in the cortex is invoked which leads to increased arousal, experienced as unpleasant, which stimulates the individual to gamble to reduce this. As noted above, the experience of withdrawal effects on ceasing gambling (Rosenthal and Lesieur 1992) are consistent with this model. Imaginal desensitisation is claimed to reduce unpleasant arousal consequent on presentation of cues to gambling behaviour, through the repeated imaginal presentation of such cues whilst the individual is in a relaxed state (McConaghy 1988).

The importance of pre-gambling aversive arousal in the commencement of gambling was further evaluated by McConaghy et al (1988), in a study seeking to compare a behaviour completion mechanism explanation of the efficacy of imaginal desensitisation with a conditioned stimulus model, where the treatment is proposed to extinguish the conditioned response of arousal associated with gambling cues. Utilising a sample of ten clients in each arm, the study compared imaginal desensitisation with imaginal relaxation, which involved no presentation of gambling related cues within the treatment. The study found no difference between the two interventions at one month follow-up, and better outcomes for imaginal relaxation at twelve month follow-up. There were significant positive correlations between reported mean level of tension and reported mean gambling urge strength at the end of treatment, one month follow-up and twelve month follow-up, irrespective of treatment. The authors argued that these results could be understood as supporting the importance of a reduction in aversive arousal in the efficacy of treatment.

Imaginal desensitisation for problem gambling has been criticised on two main points. Firstly, that it rests on an oversimplified model of problem gambling, depending solely on the aspect of reduction of aversive arousal, ignoring the reinforcing nature of the behaviour, and the issue of cognitive distortions (Sharpe and Tarrier 1993). Secondly, that the claimed mechanism underpinning imaginal desensitisation as a technique leading to arousal reduction directly is inaccurate, and that it should be understood as a cognitive rehearsal technique, with repeated practice (Dickerson 1989).

Echeburua et al (1996) compared three treatment conditions and a waiting list control for slot machine gamblers. Their active treatments consisted of individual stimulus control and exposure with response prevention, group cognitive restructuring, and a combined treatment. Whilst all treatment conditions showed improvement, outcomes favoured the individual stimulus control followed by exposure with response prevention condition, particularly at six month follow up. Fourteen out of sixty four clients dropped out during the six week treatment. This study has been criticised for the lack of a presented theoretical rationale for the treatments selected, and for its reliance on gambling behaviour, rather than other features of pathological gambling (perceived lack of control, urge to gamble) as the main outcome (Sylvain et al 1997).

Echeburua et al (2000) studied the effects of a relapse prevention programme following the application of stimulus control followed by exposure with response prevention. Sixty nine slot machine gamblers meeting DSM IV criteria for pathological gambling (APA 1994) were treated initially utilising the stimulus control, exposure with response prevention approach, with 100% abstinence reported at the end of this phase. They were then randomly assigned to individual or group relapse prevention, focusing on factors identified by Marlatt (1985), or a control group. The relapse prevention clients were significantly less likely to relapse over the course of twelve month follow-up, and reported significantly lower scores on measures of anxiety and depressed mood following the relapse prevention intervention and throughout the twelve month follow-up period.

Sylvain et al (1997) compared a cognitive behavioural treatment to a waiting list control condition for a group consisting largely of video poker gamblers. Treatment included direct identification and correction of the cognitive biases regarding gambling

held by the individual. This technique was primarily educational in nature. In addition clients received problem solving training, and relapse prevention (Marlatt 1985). Where a social skills deficit was identified, social skills training was utilised. Significant changes in gambling specific measures including the South Oaks Gambling Screen (Lesieur and Blume 1987), perception of control, frequency of gambling and number of DSM III-R (APA 1987) criteria were reported at end of treatment and 6 and 12 month follow up. The authors argued for the centrality of the cognitive correction component of treatment. The study can be criticised for confounding the effect of each component of treatment through the utilisation of multiple treatment methods, but outcome measures for the population were appropriate. Eight of twenty two clients in the treatment group dropped out before completion of treatment.

Three studies by the Canadian group headed by Ladouceur (Bujold et al 1994; Ladouceur et al 1994; Ladouceur et al 1998) utilised multiple baseline across persons designs. Treatment in the first two studies constituted a package of cognitive interventions, problem solving training and relapse prevention procedures. Social skills training was included in the Ladouceur et al (1994) study. Subjects were slot machine or video poker machine gamblers. Primary outcome measures in both studies were perception of control and perceived gambling severity. The cognitive intervention included verbalisations recorded during a session of gambling using the think aloud method being the subject of review. The client was asked to listen to the tape, noting erroneous verbalisations and replacing them with more realistic statements. Results showed clinically significant improvements on both perception of control and perception of gambling severity for all subjects, this being maintained to six month follow up.

The Bujold et al (1994) and Ladouceur et al (1994) studies can be criticised for a weak design, with the inappropriate use of a multiple baseline across subjects design (Harris and Jenson 1985), and highly reactive outcome measures (Morley 1989), which could be considered process measures. Specifically the lack of a shared environment by the subjects would indicate that the designs are actually AB designs with replications and variable baselines. Attributing the outcomes primarily to the cognitive intervention is problematic given the multiple-component treatment, as for the Sylvain et al (1997) study. A number of these issues were addressed in the third single case experimental design with replications study reported by the Ladouceur group (Ladouceur et al 1998).

This again utilised a variable baseline across subjects single case experimental design replication, with five subjects. In addition to the perception of control measure, and a rating of the desire to gamble, participants were also assessed utilising the DSM IV criteria (APA 1994), and the South Oaks Gambling Screen (Lesieur and Blume 1987). Treatment consisted exclusively of the cognitive correction component as utilised in previous studies outlined above. Results indicated that four of the five clients achieved clinically significant changes on all measures, supporting the effectiveness of the cognitive correction approach.

One further single case experimental design with replications study (Symes and Nicki 1997) has investigated the efficacy of cue exposure with response prevention for two video poker gamblers. Treatment involved extensive graded exposure to personally relevant gambling related cues without participation in gambling. Outcomes related to gambling behaviour, gambling wins/losses, and the number and strength of urges to gamble. The authors proposed that conditioned gambling related urges would be extinguished through this procedure, resulting in reduced gambling behaviour, and reduced number and strength of urges to undertake the behaviour. Both subjects reduced gambling behaviour substantially compared to baseline, over a one month follow-up period. However, only one of the subjects reported the expected reduction in frequency and strength of urges to gamble, raising questions regarding the proposed mechanism underpinning the behaviour change.

Other reports of behavioural or cognitive gambling treatments have been uncontrolled single case studies and case series (Goorney 1968; Seager 1970; Dickerson and Weeks 1979; Greenberg and Rankin 1982; Toneatto and Sobell 1990; Sharpe and Tarrier 1992). Approaches have tended to follow trends in cognitive-behavioural approaches generally.

Aversive techniques based upon classical conditioning were reported by Goorney (1968), and Seager (1970). These involved giving the client a mild electric shock associated with cues to gambling behaviour such as the horse-racing pages in a newspaper. Results from these approaches were mixed and follow-up data limited. As noted above McConaghy et al (1991) found that imaginal desensitisation resulted in significantly better response than did an aversive therapy.

Dickerson and Weeks (1979) reported a case study where the treatment consisted of a combination of stimulus control, controlled gambling, the establishing of incompatible behaviours and marital work. A successful outcome of controlled gambling was reported, with discussion of the beneficial effects for some problem gamblers of targets other than abstinence. Utilising a similar approach in a case series of twenty six clients Greenberg and Rankin (1982) evaluated a two-phase treatment of cue avoidance followed by cue exposure. Of the twenty six clients five dropped out after the first treatment session. Of the remaining twenty one five had achieved control of their gambling, seven had outcomes regarded as moderately successful and nine were continuing to gamble in a problematic way at nine month follow-up.

Toneatto and Sobell (1990) and Sharpe and Tarrier (1992) reported single cases of cognitive behavioural treatments for problem gambling. Both focused explicitly on cognitive distortions relating to the behaviour of gambling, utilising evidence gathering and socratic questioning to identify and challenge distorted cognitions and the attitudes underpinning them (Beck, Rush, Shaw and Emery 1979). In addition Sharpe and Tarrier (1992) reported the utilisation of a range of behavioural approaches. These included stimulus control measures, the promotion of alternative pleasurable activities, applied relaxation training, imaginal exposure, cue exposure, and the use of motivational interviewing (Miller 1983; Miller and Rollnick 1991). Motivational interviewing will be discussed further below.

Both Toneatto and Sobell (1990) and Sharpe and Tarrier (1992) reported good results from their uncontrolled single cases, with not only abstinence from gambling, but also marked reductions in the urge to gamble.

Motivational interviewing

As can be noted from the outline of studies above, failure to retain many individuals in treatment is a common feature of the gambling treatment literature, in common with the substance misuse literature (Stark 1992). In this respect the development of motivational interventions in the alcohol treatment field appears relevant (Miller 1983; Miller and Rollnick 1991; Rollnick and Miller 1995). Motivational interviewing has been defined as “A directive, client-centred counselling style for eliciting behaviour change by helping clients to explore and resolve ambivalence.” (Rollnick and Miller 1995 p.326). It relates to the stages of change model of Prochaska and DiClemente

(1986), and entails a style of intervention focusing on eliciting and selectively reinforcing client self-motivational statements whilst avoiding generating resistance (Miller and Rollnick 1991). Support for the efficacy of the motivational interviewing approach within alcohol treatment was found within Project Match, a large, multi-site alcohol problem treatment study, where a four session manualised form of the approach, termed Motivational Enhancement Therapy (Miller, Zweben, DiClemente and Rychtarik 1992) was found to be as effective as both a twelve session cognitive-behavioural intervention (Kadden, Carroll, Donovan, Cooney, Monti, Abrams, Litt and Hester 1992) and a twelve session 12-step model intervention (Nowinski, Baker and Carroll 1992, Project MATCH Research Group 1997). Use of motivational interviewing was reported in the Sharpe and Tarrier (1992) case study, but has not been reported in any of the controlled treatment outcome studies.

Minimal treatments

One further development in the treatment literature has been studies focusing on the effects of minimal treatment (Dickerson, Hinchey and Legg England 1990), and on recovery from gambling problems without treatment (Hodgins and el-Guebaly 2000). As Dickerson et al (1990) note, there have been a number of studies in the alcohol field evaluating the effectiveness of behavioural self-help manuals for drinkers. Dickerson et al (1990) utilised these as a model for a self-help treatment for problem gamblers with and without therapist contact. Results at six month follow-up indicated that mean frequency of gambling sessions and total amount spent weekly had reduced in both groups, but that amount spent at each session of gambling had not reduced. Interpretation of these results is hampered by the poor quality of information gained from participants, which was exclusively gathered by post following initial interview.

In common with the move to evaluate brief treatments, the study of recovery from addictions can assist the development of targeted treatments (DiClemente, Prochaska, Fairhurst, Velicer, Velasquez and Rossi 1991). Hodgins and el-Guebaly (2000) have reported a study of 106 media recruited participants who were either current or resolved pathological gamblers. The resolved gamblers were able to identify a variety of reasons for quitting gambling, mainly related to emotional and financial factors. The process by which control was regained most commonly involved actions classified as stimulus control/avoidance strategies, commencing new activities, cognitive strategies (e.g. purposely thinking about the negative aspects of gambling), and the use of social

support. Resolved gamblers reporting relatively more severe problems were more likely to have had treatment or attended self-help organisations in the process of regaining control. The authors argue that the study indicates the need for different levels of treatment for different levels of severity of problem.

Overview

In summary, three distinct behavioural and cognitive approaches to problem gambling have produced good outcomes in at least one controlled study. These are imaginal desensitisation, stimulus control plus exposure with response prevention, and cognitive restructuring. It appears that relapse prevention approaches following an initial intervention may be helpful in maintaining abstinence. These competing approaches emphasise different aspects of the psychological processes reported to be involved in gambling. Those processes relate to operant and classical conditioning, and cognitive perspectives.

The model underpinning imaginal desensitisation emphasises the experience of increased arousal associated with the encountering of gambling-related situations. This arousal, being experienced as aversive, is reduced on commencement of gambling, thereby negatively reinforcing the behaviour of commencing gambling. Imaginal desensitisation is argued to reduce the aversive tension, thereby enabling the individual to reduce their gambling behaviour. This model would predict that arousal reduction would be associated with good long-term outcome in problem gambling.

Two possible mechanisms have been posited to explain the efficacy of stimulus control followed by exposure with response prevention. The first is the reduction of classically conditioned cues to gambling related urges, through a process of habituation (Symes and Nicki 1997; Marks 1981), and is somewhat similar to the mechanism underpinning imaginal desensitisation. The second proposed mechanism is through the enhancing of self-efficacy regarding control of gambling behaviour (Echeburua et al 2000; Bandura 1977; Bandura 1997).

Cognitive restructuring is argued to alter biased cognitions regarding gambling, thereby enabling the individual to challenge gambling related cognitions in gambling situations, and so enhancing perception of control over gambling (Sylvain et al 1997).

Whilst these four possible mechanisms of change may not be mutually exclusive it would be parsimonious to attempt to identify more clearly the process of change within gambling treatment. The single case experimental design utilised in the first part of this study provides a mechanism for exploring the process-outcome linkage because of the level of detailed information available.

The single case experimental design with replications sought initially to evaluate the efficacy of a model based multi-faceted cognitive behavioural intervention for problem gambling. It was anticipated that, if a positive response to the intervention was achieved within the single case experimental design, a move to a randomised controlled trial of the approach would be warranted. Whilst the cognitive behavioural intervention can be considered an undifferentiated independent variable, it is also possible to evaluate the effects of the sequential addition of different elements of treatment. In addition, the measures selected allowed some of the processes involved in change to be investigated. Given the length of time undertaking the study the researcher's ideas developed in the context of the changing literature regarding treatment of problem gambling. This enabled additional aspects of the process of change to become more of a feature of the study. The research questions for this first part of the study were:

- Can a cognitive behavioural intervention assist gamblers meeting criteria for pathological gambling to change their behaviour to a clinically significant extent?
- What is the effect of the sequential addition of different elements of the treatment programme on gambling behaviour?
- To what extent does the sequential addition of elements of the intervention affect gambling related urge strength?
- To explore any possible link between gambling behaviour and depressed mood among the treated group of clients.
- To explore any possible link between gambling behaviour and arousal among the treated group of clients.

It was anticipated from the beginning of the study that process data from the single case experimental design would be analysed qualitatively. The failure of the cognitive behavioural approach to be shown to be effective within the single case experimental design meant that a move to a randomised controlled trial was not appropriate. The

qualitative analysis of clinical and other data then became the major focus of the study.
The rationale for this will be outlined in the discussion chapter of section 2.

SECTION 2

Single Case Experimental Design with Replications

METHODOLOGY

This chapter will outline the single case experimental design with replications part of the study, and discuss its utilisation. Advantages and problems with the methodology will be identified, and approaches utilised to ensure rigour within the application of the methodology will be discussed. The development and utilisation of a simple questionnaire to ascertain client reasons for dropping out of treatment will also be outlined and discussed.

Outline of the Method

Design

A single case experimental design with replications has been utilised (Kazdin 1982; Barlow and Hersen 1984). The elements of this design have been as follows:

- 1) Screen referred clients against DSM IV (American Psychiatric Association 1994) pathological gambling criteria, and other research entry criteria. These will be detailed below.
- 2) Gather multiple measures for the individual including gambling history, current self-reported gambling, and measures of depression, anxiety, psychiatric symptomatology, interpersonal problems and functional impairment. The reasoning behind the selection of the specific measures used will be discussed below.
- 3) Baseline with repeated measurement over six weeks.
- 4) Treat, utilising a multi-component approach, over approximately 15 sessions.
- 5) Take repeated measurements throughout treatment.
- 6) Follow-up, over a twelve month period initially.

The process for individual clients is summarised in figure 1.

Figure 1.

The research process within the single case experimental design

	Research Entry	Baseline Phase	Treatment Phase	Follow-up Phase
Duration	Initial interview	6 weeks	Approx. 20 weeks	12 months
Intervention	Screening against research entry criteria.	None	Approx. 15 sessions of cognitive behavioural treatment.	Follow-up sessions at 1, 3, 6 and 12 months.
Measurement	DSM IV criteria. All measures.	Daily monitoring of gambling behaviour. Weekly measures of depressed mood and anxiety symptoms.	Daily monitoring of gambling behaviour. Weekly measures of depressed mood and anxiety symptoms. All measures at commencement, every six weeks, and at discharge.	Daily monitoring of gambling behaviour. All measures at each appointment.

Nine clients entered the research, and attended at least one session of treatment, representing a single case and eight replications.

The design outlined represents an AB design (Barlow and Hersen 1984), with the original case and replications having a fixed length baseline A phase of six weeks, and a treatment B phase of fifteen sessions over approximately twenty weeks. Follow up sessions at one, three, six and twelve months post discharge were planned. Throughout the baseline, treatment and follow-up sessions, measures were collected at the beginning of the session in a standard way. As far as possible the times, days and venue of appointments were kept consistent. Issues regarding the AB design will be discussed below.

Sample

All clients referred to the Specialist Psychotherapy Service of Community Health Sheffield NHS Trust between April 1st 1995 and October 1st 1997 with an identified gambling problem were assessed for the study. Selection criteria for involvement in the research were limited, so that as wide a range of clients meeting diagnostic criteria for pathological gambling could be included in the study. Specifically, individuals who had other mental health problems were not excluded, enabling the individuals studied to represent a largely unselected clinical sample. Due regard was given to the ethical issues regarding involvement in a research study which involved a no treatment baseline phase, and repeated measurement. To be accepted into the study the following criteria had to be met:

A) The client was requesting assistance with a gambling problem, which they reported to be their primary problem.

B) The client satisfied criteria for DSM IV pathological gambling (American Psychiatric Association 1994). See table 2, page 18 for details.

C) The client scored 5 or above on the modified South Oaks Gambling Screen (Lesieur and Blume 1987). This represents the client meeting criteria for pathological gambling according to DSM 111-R criteria (American Psychiatric Association 1987).

D) The client did not report themselves to be actively suicidal.

E) The client consented to involvement in the research following receipt of verbal and written information regarding the study. See Appendix A for a copy of the client information sheet and consent form.

F) Consent included a willingness to attend all baseline sessions, as well as treatment sessions and follow-up sessions to one year.

Screening for entry to the research was undertaken at first contact with the client. Clients who met research entry criteria then entered the baseline phase.

During the period April 1st 1995 to October 1st 1997 thirty five clients were referred to the service with an identified gambling problem. Table 3 shows how the final sample of nine clients resulted from these referrals. All clients were offered intervention as appropriate whether they entered the research or not. Table 4 gives a breakdown by age, sex and ethnic origin for all referrals.

Measurement

The unit of study in each case has been the individual client. The individual's gambling behaviour and other characteristics have been the subject of repeated measurement. The selection of measures was driven by theoretical considerations identified within the research questions. The first issue was the overall effect of treatment on gambling behaviour, and gambling problems. This was assessed primarily by use of daily diaries of behaviour. In addition, retrospective reports of gambling behaviour were gathered for some clients through the use of the Timeline follow-back procedure (Sobell, Maisto, Sobell, Cooper, Cooper and Sanders 1980). Other measures of overall change in gambling problems were through the use of the South Oaks Gambling Screen (Lesieur and Blume 1987), discussed below, at entry to the study, first treatment session, end of treatment and through follow-up. In addition, personally negotiated problem and target statements (Marks 1986) related to client gambling problems provided a measure of gambling related self-efficacy (Bandura 1977).

Table 3.

All referrals April 1st 1995 to October 1st 1997, how the research sample was achieved

Reason for exclusion	Number of Clients
Failed to attend first appointment	10
Did not meet severity criteria	7
Met severity criteria but refused involvement in research	2
Met severity criteria but actively suicidal	1
Commenced but failed to complete baseline period	3
Withdrew from research	3
Completed baseline period and entered treatment	9
Total	35

Table 4.

All referrals April 1st 1995 to October 1st 1997. Demographic details

Age at referral	Sex	Ethnic Origin
Range: 19 - 60	Male: 29 Female: 6	White: 20
Mean : 34.8		Black Carribbean: 3
St. Dev.: 9.2		Black Other: 1
		South Asian: 1
		Not known: 10

Application of the independent variable, the treatment intervention, was monitored and recorded, and gambling behaviour records are overlaid with details of the treatment applied. Given the model driven nature of the interventions, the sequencing of the interventions means that the effect of any element treatment alone was not the central aspect of these reports, but the cumulative effects of different elements of the treatment in combination can be considered through such detailed process analysis.

The third research question related to the link between gambling related urges, and specific interventions. Urge strength was monitored throughout treatment on self-completed diary sheets.

Two further questions investigated in this part of the study related to the proposed mediation of change in gambling problems via changes in anxiety and depressed mood. Anxiety symptoms were measured through the weekly completion of the Beck Anxiety Inventory (Beck, Epstein, Brown and Steer 1988). Depressed mood was monitored through the weekly completion of the Beck Depression Inventory (Beck, Rials and Rickels 1974).

Other measures were utilised to assess general symptomatology, and reported functional impairment. Measures utilised for this purpose were the Brief Symptom Inventory (Derogatis and Melisaratos 1983), the Inventory of Interpersonal Problems-32 (Horowitz, Rosenberg, Baer, Ureno and Villasenor 1988; Barkham, Hardy and Startup 1996), and the Life Adjustments Scale (Marks 1986). Table 5 provides an outline of the measures taken for each client, and their frequency. Details of all measures are outlined below.

Table 5.
Nature and purpose of measures undertaken within the study

Measure	Frequency	Purpose
Gambling diary: Frequency Duration Financial gains / losses	Daily record of gambling, throughout baseline, treatment and follow up	Primary outcome measure
Time-line follow-back method (Sobell et al 1980)	Completed during assessment, regarding gambling over the six months prior to research entry	Record of pre-baseline gambling pattern
South Oaks Gambling Screen (Lesieur and Blume 1987)	At research entry, 1st treatment session, discharge from treatment, 3, 6, and 12 month follow up	Measure of extent to which client meets pathological gambling criteria
Problem and target statements (Marks 1986)	Agreed as part of assessment, then rated 6 weekly throughout treatment and all follow up sessions	Individually tailored outcome measures. Relate to client self-efficacy regarding gambling
Gambling Urges Diary	Within assessment and treatment. Completed whenever an urge to gamble is reported	Measure of perceived urge strength, and qualitative information regarding gambling urge
Beck Anxiety Inventory (Beck et al 1988, Beck and Steer 1993b)	Weekly, throughout baseline and at every treatment and follow up session	Correlation between symptoms of anxiety and gambling behaviour
Beck Depression Inventory (Beck et al. 1974, Beck and Steer 1993a)	Weekly, throughout baseline and at every treatment and follow up session	Correlation between depressed mood and gambling behaviour
Brief Symptom Inventory (Derogatis and Melisaratos 1983, Derogatis 1993)	At research entry, 1st treatment session, thereafter 6 weekly throughout treatment and all follow up sessions	Measure of psychiatric symptomatology and nine symptom dimensions
Inventory of Interpersonal Problems-32 (Horowitz et al. 1988, Barkham et al. 1996)	At research entry, 1st treatment session, thereafter 6 weekly throughout treatment and all follow up sessions	Measure of interpersonal problems
Life Adjustments Scale (Marks 1986)	At research entry, 1st treatment session, thereafter 6 weekly throughout treatment and all follow up sessions	Measure of impact on overall functioning

Selection of the measures

1) Daily self-report of gambling behaviour, duration and financial gains/losses.

The main outcome measure in the study comes from daily self-report of gambling behaviour on self-report sheets provided (Appendix B). The main advantages of the use of frequency, duration and financial losses incurred are that they relate directly to the behaviour of gambling, and the concept of pathological gambling, that they are quantifiable, suitable for graphic presentation, and do not require skills of introspection from the client. There are potential disadvantages in the use of this type of self-report. The primary ones are the client making deliberate or inadvertent mistakes in their reporting. That is, clients may lie, or not be accurate in their recording.

Given that one of the commonly reported features of pathological gamblers behaviour, and one of the criteria for pathological gambling is that the individual will lie about their gambling to significant others (APA 1994), the problem of lying needs to be taken seriously. In the study this issue was tackled in several ways:

Firstly, a non-labelling, non-confrontative approach was taken throughout the treatment. Specific, repeated emphasis was placed on the importance of accuracy in recording gambling behaviour, so that not only could the behaviour be studied, but so that in the treatment phase the client and therapist can learn from "slips" as well as successes.

Secondly, the confidentiality of all information given to the therapist was assured, with no information about specific episodes of gambling being given to the client's family members. The client was expected to practice being more honest with family members as part of the intervention.

Thirdly, the self-reported gambling diaries were collected at the commencement of each session, with the opportunity to correct any inaccuracies or under-reporting being given. Where the client did not bring in their gambling diaries, a replacement form was provided and completed together at this point.

Inadvertent errors in the reporting of gambling were tackled by the emphasis on daily self-reporting of gambling behaviour.

One other means by which the accuracy of reports could have been enhanced which was considered, but not used was information from relatives or significant others. Information from significant others has been used extensively in some studies of alcohol dependence (Foy, Rychtarik and Prue 1988). The advantage is that a "neutral" third party can corroborate client reports. However Polich (1982) reported that where self-reports and third party reports were compared against physiological measures, there was evidence that third party reports were more likely to be inaccurate than client reports. As noted above, many problem gamblers lie to significant others regularly, covering up their gambling behaviour. As the requirement for third party confirmation of self-reports was considered likely to hinder the therapeutic relationship and undermine the importance of accurate self-reporting, whilst conferring few benefits, it was not used.

2) Time-line follow-back method (Sobell et al 1980).

The Time-line follow-back method is a means to more accurately gather retrospective information regarding addictive behaviours. It was developed by Sobell et al (1980) as an alternative to the Quantity-Frequency method of assessing alcohol consumption (Strauss and Bacon 1953), because of that methods perceived difficulties in adequately reflecting the nature of problem drinking behaviour (Sobell, Cellucci, Nirenberg and Sobell 1982). The method involves providing the client with a calendar on which key personal events are recorded, as an aid to accurate recording. These "anchor points" then act as an aid to accurate recording. Further, regular patterns of involvement with the addictive behaviour are identified around the anchor points to assist with accurate completion.

In the current study the Time-line follow-back method was utilised to add to the six week baseline data available. Clients were asked to complete as accurately as possible a six month retrospective record of gambling behaviour, at the beginning of treatment. Whilst a small number of clients were able to provide the information, in the main, there was a failure to complete this record. This will be discussed further below.

3) South Oaks Gambling Screen (Lesieur and Blume 1987; Lesieur 1994).

The South Oaks Gambling Screen (SOGS) is a twenty item self-report scale which scores in the range 0-20. Scores of 5 or above are proposed to represent gambling behaviour meeting DSM111R (APA 1987) criteria for pathological gambling. Items

focus primarily on behavioural self-control and social impact criteria. The SOGS threshold of 5 has been utilised in a number of prevalence studies internationally, including the British Gambling Prevalence Survey (Lesieur 1994; Sproston et al 2000). In Australia the Productivity Commission (1999) have suggested that the threshold score of 5 may result in a large number of false positives, and that a more conservative threshold of 10 would ensure that this does not occur. Interestingly all of the research sample met this more rigorous threshold at entry to the study.

The SOGS asks for lifetime occurrence of the behaviours reported (Lesieur and Blume 1987), making it problematic to utilise as an outcome measure. In the present study the scoring parts of the scale were altered to refer to behaviour over the three months before completion. In addition to meeting DSM IV criteria (APA 1994), a score of 5 on the modified SOGS was utilised as a criteria for entry to the study. The SOGS was also utilised as a pre, post and follow-up measure of gambling pathology.

4) Self-rated problem and target statements (Marks 1986)

Personally tailored problem and target statements were identified for each client as part of assessment. These are rated on a 0-8 scale, with 8 representing maximum difficulty. Ratings of both current behaviour and discomfort regarding each problem and target statement are made, at each point of measurement. Gambling related problem and target statements can be considered measures of client perceptions of self-efficacy with regard to their gambling difficulties.

5) Self-rated urges to gamble within treatment.

Self-reported urges to gamble are process measures which require that the client be taught to monitor internal states. Similar measures have been utilised as an outcome measure by Sylvain et al. (1997), where the ratings were of perception of control, and desire to gamble. Perception of control and perceived severity of gambling have also been utilised by Bujold et al. (1994) and Ladouceur et al. (1994) in single case experimental design with replications studies. There are problems in utilising such measures as main outcome measures. Firstly, the reliability of self-report data where the individual is asked to make judgements about internal states is impossible to measure (Morley 1989), and subject to obvious social desirability factors (Polit and Hungler 1999). Secondly, the process of enabling the client to self-monitor urges is a treatment procedure having the effect often of reducing the behaviour associated with

the urge (Barlow, Hayes and Nelson 1984). As a result the need for repeated measures during the baseline period would be likely to lead to measurement effects preventing the subsequent interpretation of data.

In the current study self-reported urges to gamble were utilised as a process measure within treatment, in a similar way to that reported by Symes and Nicki (1997). The reported reduction in frequency and intensity of urges to gamble provided information about the effects of the cue-exposure (Greenberg and Rankin 1982; Sharpe and Tarrier 1992) and cognitive restructuring (Beck et al 1979) elements of treatment. In addition qualitative information from the completed gambling urges diaries is reported for illustrative purposes. The format and guidelines for self-monitoring are shown in Appendix C.

6) Beck Anxiety Inventory (Beck et al 1988; Beck and Steer 1993b).

The Beck Anxiety Inventory (BAI) is a twenty one item self-report scale developed to relate to the construct of anxiety. The respondent is asked to identify how often over the previous week they have experienced each of the twenty one symptoms. Frequencies range from never, scored 0, through occasionally and frequently to almost all the time, scored 3.

In the current study, the scores obtained from the BAI were utilised as a measure of anxiety, so as to identify correlation with gambling behaviour. For this purpose it was completed weekly, or whenever the client attended baseline, treatment and follow-up sessions.

The relevance of anxiety to the issue of maintenance of improvement in control of gambling behaviour was argued by McConaghy et al. (1983), who found that a high level of state anxiety one month after treatment utilising imaginal desensitisation predicted relapse at one year.

7) Beck Depression Inventory (Beck et al 1974; Beck and Steer 1993a).

The Beck Depression Inventory (BDI) is a twenty one item self-report scale whose items have been developed to relate to the construct of depressed mood. Each item consists of four alternative statements graded in severity from 0 to 3. Responses relate

to the previous seven days. Scores from all items are totalled to produce an inventory score.

In the current study, the scores obtained from the BDI were utilised as a measure of depressed mood, so as to identify correlation with gambling behaviour. For this purpose it was completed weekly, or whenever the client attended baseline, treatment and follow-up sessions. Stability of response to the BDI over time in non-clinical populations is high (Beck and Steer 1993a), increasing the likelihood that changes in scores on the measure are picking up real changes in mood in clinical populations. Guidelines for the clinical interpretation of BDI scores are provided by Beck and Steer (1993a). The extent of correlation between scores on the BAI and BDI for each individual were also calculated.

8) Brief Symptom Inventory (Derogatis and Melisaratos 1983; Derogatis 1993).

The Brief Symptom Inventory (BSI) is a fifty three item self-report scale. It is designed to relate to nine symptom dimensions, together with providing three measures of global psychopathology. The respondent is asked to identify how much each of the fifty three items has distressed or bothered him or her in the previous seven days. Each item is scored on a 0-4 scale from not at all to extremely.

The symptom dimensions are somatization; obsessive-compulsive; interpersonal sensitivity; depression; anxiety; hostility; phobic anxiety; paranoid ideation; psychoticism. Each dimension contains between four and seven items.

Normative data have been developed for the BSI, from a North American population. Four norms have been developed to relate to adult psychiatric outpatients, adult nonpatients, adult psychiatric inpatients and adolescent nonpatients. These norms enable t-score profiles to be generated for respondents against the appropriate group, for each symptom dimension, and for each global score.

In the current study the BSI was utilised primarily to assess the extent to which changes in gambling behaviour were accompanied by changes on the general measure of psychiatric symptomatology, the Global Severity Index. In addition, the extent to which clients at different measurement points met psychiatric caseness criteria as

defined by Derogatis (1993) provides an indication of the severity of their overall distress.

9) Inventory of Interpersonal Problems-32 (Horowitz et al 1988; Barkham et al 1996). The Inventory of Interpersonal Problems-32 (IIP-32) is a thirty two item self-report scale developed to measure the severity of interpersonal problems experienced by the respondent, and the distress experienced. The scale is divided into two parts. The first part relates to the statement "things you find hard to do with people", the second "things you do too much". Both are scored on a 0-4 scale from not at all to extremely.

The IIP-32 was developed from the Inventory of Interpersonal Problems (Horowitz et al. 1988), which is a 127-item scale relating to the construct of interpersonal disruption. The shorter version was chosen because of the desire to minimise the measurement load on clients whilst gathering information regarding the effect of treatment on interpersonal functioning. The IIP-32 produces a Full Scale score, and eight sub-scales. The subscales are Hard to be Assertive; Hard to be Sociable; Hard to be Supportive; Too Caring; Too Dependant; Too aggressive; Hard to be Involved; Too Open.

Barkham et al (1996) have produced British normative data for both general population and clinical psychology outpatient samples. They found a large and highly significant difference between the general population and outpatient samples on the Full Scale score and each of the sub-scales. Significant differences between male and female groups were found in the general population sample, but not for the outpatient sample.

In the current study the IIP-32 was utilised primarily to assess the extent to which changes in gambling behaviour were accompanied by changes on the general measure of interpersonal functioning, the Full Scale score.

10) Life Adjustments Scale (Marks 1986).

The Life Adjustments Scale is a five item general rating of functional impairment. Items include Work, Home management, Social leisure activities, Private leisure activities and Relationships. Each item is rated on a nine point scale, regarding degree of interference in that area of functioning, from 0, not at all, to 8, very severely.

In the present study, the Life Adjustments Scale was utilised to assess the extent to which changes in gambling behaviour were accompanied by changes in overall functional impairment. For this purpose the mean score across all areas was utilised.

11) Alcohol, legal and illegal drug use.

Multiple addiction is a commonly reported feature of the gambling literature (Lesieur and Blume 1991). Substance use was assessed and monitored for all research clients.

The intervention

The intervention utilised within the study was based on a cognitive behavioural model of problem gambling outlined by Sharpe and Tarrier (1993), and the researcher's own clinical experience with gamblers. The model followed Sharpe and Tarrier (1993) in seeking to explain both the acquisition and maintenance of problem gambling, but with particular emphasis in discussion with clients on the maintenance model. Treatment approaches following from the model were derived from Marlatt (1985), Miller and Rollnick (1991), and the cognitive behavioural approach to bulimia nervosa (Fairburn 1985; Fairburn, Marcus and Wilson 1993), together with approaches identified by Sharpe and Tarrier (1992; 1993).

As discussed in the literature review, gambling is assumed to be acquired through operant and classical conditioning (Anderson and Brown 1984). The financial rewards resulting from gambling are experienced as a variable frequency reinforcement schedule, resulting in persistence of the behaviour. The arousal associated with gambling, being experienced as excitement, is also reinforcing, representing the introduction of a continuous reinforcement schedule. The repeated paired presentation of gambling related cues and arousal results in the classical conditioning of those cues, such that they become associated with the arousal. In addition, gambling environments, gambling behaviour and arousal become associated with gambling related cognitions (Legg England and Gotestam 1991; Sharpe and Tarrier 1993). These cognitions relate to cognitive errors such as the illusion of control (Langer 1975), or the perception that losses are predictive of future wins (Sharpe and Tarrier 1993), will be mood congruent, in being associated with emotional responses to gambling, and will contribute to persistence of gambling in the face of both losses and wins. The development of gambling to excess will depend on the extent to which the individual is able to apply coping skills to deal with the reinforcing nature of gambling and the cognitive errors

associated with it (Sharpe and Tarrier 1993), together with the ability to deal with mood disturbance effectively without gambling (Sharpe and Tarrier 1992).

Figure 2 outlines the proposed model of maintenance of problem gambling.

Triggers will be personally relevant situational and internal cues which have been repeatedly paired with gambling behaviour and arousal. They may include such things as money being available, vicinity of a gambling venue, stress from money problems, and mood states such as boredom and depression.

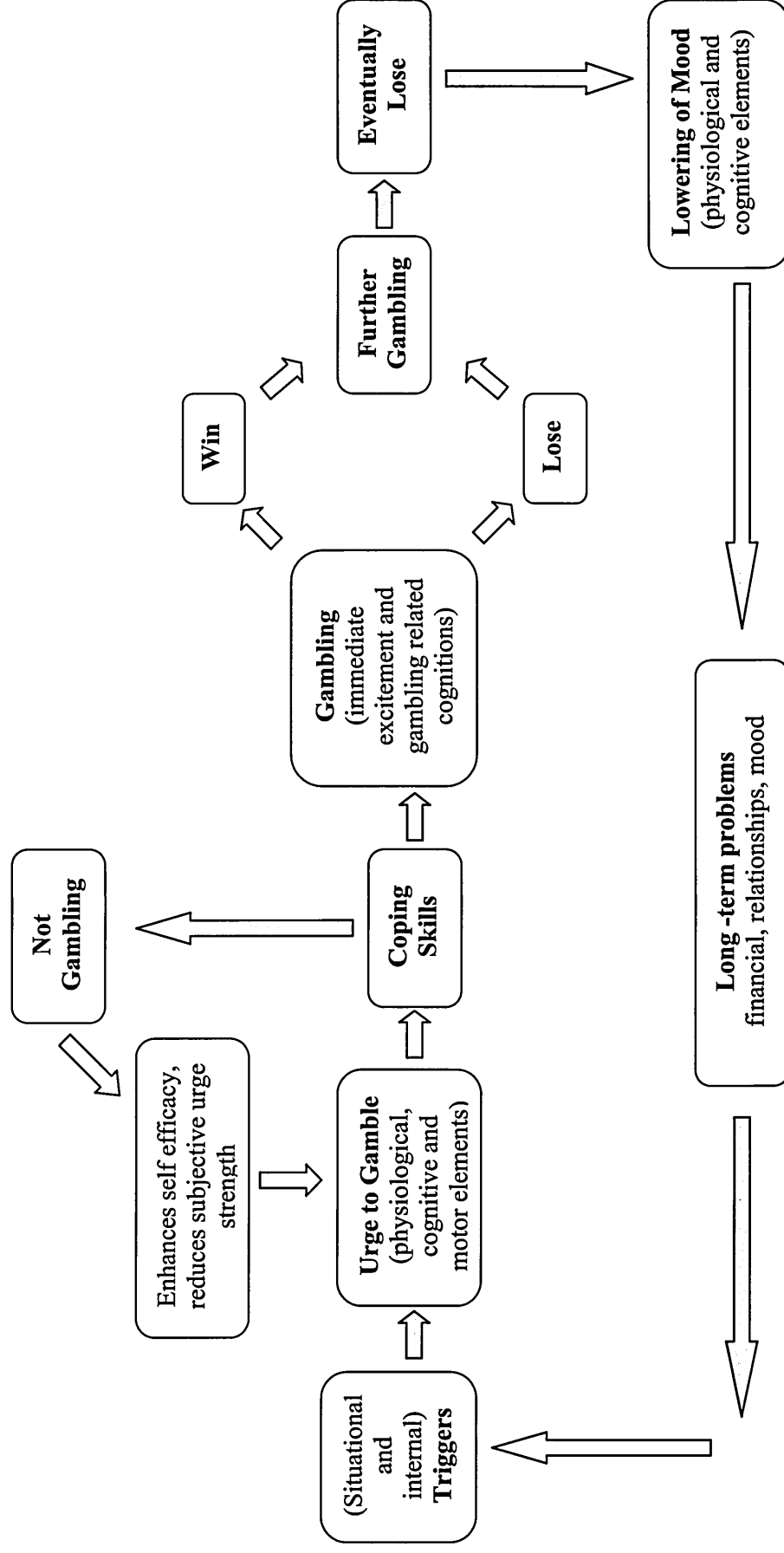
Resulting from contact with triggers, the individual will experience an urge to gamble. This may take the form of aversive tension and restlessness, as reported by McConaghy (1988), and will include a drive to associated motor behaviour, and cognitions related to gambling, including why it would be a good thing to gamble. Coping skills relevant at this stage relate both to the ability to deal with the immediate urge related tension and cognitions, and to deal effectively with the triggers. These may relate to skills of reducing tension (McConaghy 1988), skills of self-control, and the ability to challenge gambling related cognitions (Sharpe and Tarrier 1993). In addition, problem solving skills and alternative mood altering strategies (Sharpe and Tarrier 1992) may be required to deal with the triggers.

Where the individual does not apply any coping skills, or the coping skills applied fail to redirect the individual away from gambling, gambling commences. Because of the classical conditioning of arousal and the gambling environment, commencing gambling will often result in an immediate sense of excitement. Associated with this arousal, further gambling related cognitions will be experienced.

The act of gambling will lead either to winning or losing. For the problem gambler both will be associated with urges and cognitions related to continuing to engage in gambling. In the case of winning, the gambler is reinforced both financially, and often through the experience of a heightened level of physiological arousal, together with further gambling related cognitions predicting further wins. Both the reinforcement and the cognitions will increase the likelihood that the individual will continue gambling.

In the case of losing, the gambler may experience a change in physical state, experienced as aversive, and the urge to recover the reinforcing state. In addition, the

Figure 2: A model of problem gambling



variable frequency reinforcement nature of gambling has lead the individual to expect losses, and they experience cognitions predicting future wins. Both will increase the likelihood of continued gambling in the face of losing.

Again coping skills are relevant at this stage. Particularly relevant may be self-control skills, the ability to reduce arousal, and the ability to deal with cognitive distortions.

In the absence of the application of these skills, whether the individual wins or loses, further gambling is the likely outcome. This will result in a sequence of winning and losing cycles as above, resulting, if gambling continues long enough, in the eventual loss of all available money. Immediately following this loss, further physical changes occur, generally experienced as aversive, and associated with a lowering of mood, and cognitions of a self-critical nature. Again coping skills are relevant at this stage. Particularly relevant may be problem solving skills, alternative mood altering strategies, and the ability to deal with overly negative cognitions.

In the long term the results of continuing gambling losses are financial problems, social pressures and other problems, leading to mood difficulties. These problems then feed back to become further triggers to gambling.

The ability to apply coping skills at the point of experiencing an urge to gamble, once gambling has commenced, and following an episode of gambling, is argued to differentiate problem and non-problem gamblers (Sharpe and Tarrier 1993). The result of repeated application of coping skills in the face of urges to gamble, or gambling behaviour is argued to result not only in increased self-efficacy (Bandura 1977; Bandura 1997), but also a reduction in the subjective strength of experienced urges to gamble.

Treatment implications

Treatment implications following from the model relate largely to the disruption of the identified feedback loop, the enhancement of coping skills, and the recognition of the risk of reinstatement of patterns of problem gambling. The treatment approaches were derived from the work of Marlatt (1985), Miller and Rollnick (1991), and the cognitive behavioural approach to bulimia nervosa (Fairburn 1985; Fairburn et al. 1993), together with treatment reports regarding gambling which were largely case studies (Dickerson

and Weeks 1979; Greenberg and Rankin 1982; Sharpe and Tarrier 1992). Specifically treatment sought to:

- enhance engagement through the use of motivational interviewing (Miller and Rollnick 1991), the development of a personalised formulation (Kirk 1989), and the agreement of personally relevant problem and target statements (Marks 1986).
- disrupt repeated patterns of gambling through the introduction of stimulus control strategies appropriate to identified triggers to gambling (Greenberg and Rankin 1982; Sharpe and Tarrier 1992; Fairburn et al 1993).
- enhance awareness of current coping strategies through the use of self-monitoring, and support the use of those strategies that are effective (Marlatt 1985; Kirk 1989).
- enhance awareness of, and ability to challenge gambling related cognitions through the use of self-monitoring and cognitive restructuring (Beck et al 1979; Sharpe and Tarrier 1992; Fairburn et al 1993).
- reduce urge strength and enhance self-efficacy through cue exposure to gambling related triggers (Greenberg and Rankin 1982; Sharpe and Tarrier 1992).
- identify deficits in problem-solving, and enhance problem-solving skills (D’Zurilla and Goldfried 1971; Hawton and Kirk 1989).
- identify risks to the maintenance of treatment gains, and agree and implement plans for relapse prevention (Marlatt 1985).

See Appendix D for the treatment manual, and clinical materials.

Measure of treatment integrity

All treatment sessions were audiotaped, and the researcher completed a treatment progress record at the end of each session. The researcher subsequently transferred details from treatment progress records onto a treatment integrity monitoring checklist. In practice seventy out of seventy three sessions were audiotaped. Twenty percent of recorded sessions for each client were randomly selected, including at least one session for each client. This resulted in the selection of sixteen sessions. Two independent raters, who were qualified cognitive behavioural psychotherapists then listened to eight sessions each, to assess the extent to which the sessions included components of the protocol as identified by the researcher. Raters completed a treatment integrity monitoring checklist, making reference to the treatment protocol, Appendix D. Raters also rated the overall quality of each treatment session, utilising a nine point scale,

where 0 represented “no skill” and 8 represented “extreme skill”. See Appendix E for copies of both the researcher and rater forms.

Components of the treatment protocol identified by the researcher were confirmed by the independent evaluator on 86.4% of occasions. All sixteen sessions that were rated by an evaluator had at least three components of the protocol present. All aspects of the protocol were identified as having been undertaken in at least some sessions.

Specifically 100% of sessions were reported to include homework review, 100% to include the use of self-monitoring of gambling urges, 75% stimulus control or promotion of alternative pleasurable activities. 44% of sessions were reported to include cognitive restructuring, and 44% planning or review of cue-exposure. In line with the protocol, motivational interviewing, although the least reported strategy at 25% of sessions, was identified to have occurred in all the selected sessions 1 or 2.

Overall skill ratings were high. On the 0-8 scale utilised, the mean assessed skill level was 7.0, with a range of 6-8.

Client dropout

Outpatient treatments for all forms of addictive behaviour commonly report problems in retaining client contact with services (Stark 1992). As discussed in section 1 this is an issue for the treatment of gamblers also. The development of motivational approaches by Miller (1983) was partially in response to the major problem for alcohol services which failure to attend second appointments represented (Miller and Rollnick 1991).

Given the small number of clients within the present study, and the anticipated rate of drop-out, it was considered appropriate to devise a methodology to gather information regarding client reasons for drop-out. Reviewing the literature, very few studies were found where client reasons for drop-out from mental health services were actually solicited. Two studies by Pekarik (1983; 1992) represented the largest samples where clients dropping out of treatment were systematically followed up. The reasons given by clients in these studies for dropping out of treatment related to the categories; perceived improvement, environmental obstacles and dissatisfaction with services.

To investigate client dropout from the study, a number of stages were undertaken. The method used followed the guidelines of Belsen (1981). Firstly, an operational definition of dropout was identified from the literature. Secondly, the literature was reviewed to aid the development of a brief questionnaire to be sent to clients who had dropped out of treatment. Thirdly, this questionnaire and accompanying letter was evaluated by a panel of substance misuse workers with regard to the validity of the questionnaire, over two sessions, with modifications being incorporated into the final questionnaire. See Appendix F for a copy of the questionnaire and accompanying letter. Testing the questionnaire for acceptability and understanding through use of a pilot group of gambling clients was not undertaken due to constraints on access to the client group.

The operational definition of a client dropping out of treatment which was utilised was taken from Pekarik (1992). This was that, in the judgement of the therapist, the client “terminated unilaterally or against therapist advice, that is, was in need of continued treatment at termination.” (Pekarik 1992 p.94)

At the point of discharge or shortly afterwards, clients who dropped out of treatment were sent the questionnaire and covering letter, together with a stamped addressed envelope. A reminder letter was sent two weeks later to those clients who did not respond to the initial questionnaire.

Analysis

Analysis of data in this study treats each case as a separate experiment. The main outcome measure, as identified above, has been gambling behaviour, and the main means of analysis has been by the visual inspection of graphed data. Gambling frequency, duration and financial losses have been graphed and examined for changes in mean, level and trend across experimental phases. Where visual analysis indicates changes across phases, the Mann-Whitney U test has been utilised to assess the statistical significance of changes in means across phases.

Other gambling specific measures have been used to support the gambling behaviour data. The SOGS (Lesieur and Blume 1987) provides an indication of change on gambling specific pathology. Self-rated problem and target statements (Marks 1986) provide a measure of changes in gambling related perceived self-efficacy.

With regard to the research questions regarding the specific impact of the sequential addition of treatment elements on gambling behaviour and gambling urges, treatment interventions have been grouped into phases, and overlaid on graphical presentations of gambling behaviour and urges. These have been visually analysed for evident changes in mean, level and trend associated with the sequential addition of specific elements of treatment. No statistical analyses of these changes has been attempted due to the resulting small number of measurement points within these sub-treatment phases, and the effects of data indicating reducing trends.

Following this, the links between gambling behaviour, anxiety symptoms and depressed mood are analysed for each client. Correlation coefficients between the BAI (Beck et al 1988; Beck and Steer 1993b), BAI (Beck et al 1974; Beck and Steer 1993a) and gambling measures were undertaken.

Information regarding the wider impact of treatment as indicated by the other measures were then analysed.

Discussion of the method

In this section the nature and requirements of single case experimental designs will be discussed. Aspects that will be covered are the differences between case study research and single case experimental designs, the requirements for such designs, the method used within this study, and issues regarding analysis of data.

Case studies and single case experimental designs

The case study method has been utilised as a source of information for the study of psychological processes and change in therapy for many years, with the case reports of Sigmund Freud, J.B. Watson and Carl Rogers being notable examples (McLeod 1994). Case studies are particularly useful as a means of studying psychotherapy process, the development of new therapeutic approaches and rare phenomena (Kazdin 1992; Hilliard 1993). The case study is also often used to illustrate concepts in clinical journals. However, the case study has many limitations in providing evidence for the effectiveness of a particular intervention.

First, there may be many alternative explanations as to why change has come about, including such things as the decision to seek assistance, changes in relationships, and other extraneous events which may not be reported (Kazdin 1992). Secondly, the information provided in case studies is often anecdotal, with limited measurement leading to subjective and highly reactive views of improvement. Third, there are clear difficulties in extrapolation to other people and circumstances. The case study may be reported specifically because the case is unusual (Kazdin 1992).

The single case experimental approach seeks to address some of these difficulties. In common with group treatment outcome designs the aim of single case experimental designs is to evaluate the effect of different conditions on performance (Kazdin 1982). In group designs the comparison is between groups of people who are treated differently. In single case experimental designs the comparison is between the effects of different conditions applied to the same person over time (Hilliard 1993). In contrast to group designs, single case experimental designs do not assume that individual variability is unimportant. Cases are not aggregated on the assumption that they represent a homogeneous group. Rather, individual variability is recorded, and each case approached as a separate experiment (Hilliard 1993). This represents what Lincoln

and Guba (2000) term a postpositivist approach to the study of individuals. This assumes that the nature of social science will involve the development and testing of theoretical constructs regarding social reality. The theoretical constructs are viewed as necessarily flawed, as social reality can only be partially apprehended, and should be subject to modification in the light of additional evidence.

Single case experimental designs are most suited to treatments where the impact of the intervention is expected to be clinically significant and rapid (Barlow and Hersen 1984). The primary outcome measures in reported studies have tended to be observable behaviours, reflecting the historical development of the approach within the field of behaviour therapy (Kazdin 1992; Hilliard 1993). However, measures of such things as depressed mood, distress associated with intrusive memories and the urge to undertake an addictive behaviour have all been used (Bujold et al 1994; Morley 1989). In order to develop inferences about the effects of the independent variable, the intervention, on the dependent variable, certain requirements need to be met. These include continuous assessment, baseline assessment, baseline stability and treatment integrity.

Continuous assessment

In single case experimental designs there is reliance on repeated observation of performance over time. The person's performance is observed repeatedly, usually before the intervention, and continuously over the period where the intervention is applied (Kazdin 1992). Multiple means of measurement may be used, with commonly some overt behaviour being the main dependent variable. Other, more global measures may be used, but these are generally for confirming the significance of the behaviour change, rather than as primary outcome measures (Morley 1989).

Baseline assessment

Single case experimental designs generally start with some measurement of behaviour before the introduction of the intervention. This 'baseline A' phase serves both a descriptive function in providing information about the nature and extent of the person's behaviour, but, more importantly, a predictive function (Kazdin 1982). The predictive function of the baseline is an attempt to determine what the individual's behaviour would have been in the absence of intervention. As such certain features of baselines are important. A stable baseline involving the absence of a trend or variability in the person's behaviour enhances the predictive function of the baseline. Large

degrees of variability in the baseline make it more difficult to predict future performance and may require a longer baseline. An improving trend in the baseline predicts a continuing improvement even in the absence of treatment, making improvement in treatment less interpretable (Kazdin 1982; Hersen 1990).

Treatment integrity

In single case experimental designs, as with other experimental designs, treatments are specified in advance. Treatment should follow the protocol, and there are clear benefits in gathering evidence that the treatment is being applied as specified. This can take the form of a treatment integrity check by audiotaping treatment sessions for subsequent evaluation (Morley 1989). Where variation from the treatment protocol occurs details of changes should be clearly specified and results of the changed intervention noted (Barlow and Hersen 1984).

Replication

Whilst each case within a single case experimental design constitutes a separate experiment, the findings are strengthened when replication of the findings with another individual or series of cases is obtained (Barlow and Hersen 1984).

Method used within this study

In this part of the study the effectiveness of a cognitive behavioural approach for pathological gambling was being investigated through the use of an AB design with replications (Barlow and Hersen 1984). The AB design with direct replications seeks to reduce the likelihood that other explanations for change in the client's behaviour can be supported. The data from the baseline A phase are considered to have a predictive function, in enabling client behaviour in the absence of treatment to be predicted, and compared with actual data during the treatment B phase (Kazdin 1992). This is particularly relevant where, as with gambling difficulties, clients may have had the problem for many years prior to seeking intervention. The act of requesting treatment clearly indicates some motivation to change the behaviour. The baseline phase serves to evaluate the effects of this aspect alone, before any intervention is applied, with a stable baseline providing the greatest predictive value (Hersen 1990). The selection of gambling behaviour as the primary outcome measure creates difficulties where, as occurred with several clients during this study, there is no occurrence of the behaviour during the baseline period. This could be interpreted simply as the effect of seeking

treatment. The range of other measures provided the opportunity to evaluate this further.

Fixing the length of the baseline in advance ensures against there being a systematic relationship between the researcher's or client's behaviour and the introduction of the intervention (Harris and Jenson 1985). That is, the intervention is not introduced in response to conditions which could potentially predict change irrespective of intervention. The major disadvantage of fixing the baseline is that the absence of a stable baseline weakens the design's ability to exclude other explanations for change. A number of clients in the study had very unstable baseline gambling behaviour, which rendered interpretation of their data problematic (Kazdin 1982; Barlow and Hersen 1984).

The AB design is inherently weaker than an ABAB design which offers more possibility for the controlling effect of the intervention B on the dependant variable to be shown (Barlow and Hersen 1984). This is because the withdrawal of the intervention in the second A baseline phase, if associated with a reversal in the beneficial effects of the first B phase indicates strongly the controlling effect. Indeed, Kazdin (1992) considers the AB design a quasi-experimental design, which can only indicate the controlling effect of the intervention in the presence of a number of replications. However, as Barlow and Hersen (1984) note, the ABAB design cannot be utilised where the effects of the intervention are irreversible, specifically as in the example of the provision of instructions. This provides a difficulty for the treatment package being tested, as, for instance, the Motivational Interviewing aspect of the intervention, which was delivered in the first session, seeks to increase the individuals perception of responsibility for their own behaviour, whilst at the same time highlighting discrepancies between verbalised attitudes and behaviour (Miller and Rollnick 1991). Such an intervention is unlikely to be possible to withdraw readily, in the same way that a reinforcement schedule could be (Hersen 1990).

The replication feature of the design used sought to control for the possibility that change in any one individual may be purely as a result of the passage of time (Watson and Workman 1981). The number of replications required to establish the credibility of the intervention's controlling effect is discussed at length in Barlow and Hersen (1984), who conclude that a single case plus three replications is sufficient. However, they

recommend a longer case series where there is partial failure of replication, to gather maximum information regarding the possible enhancement of treatment (Hersen 1990)

Evaluation of results

The primary means of analysis in single case experimentation remains visual inspection (Morley 1989; Kazdin 1992). The data for the different phases are plotted graphically, and inspected for characteristics of changes in mean, level and trend. The latency of the change is also investigated. The principle underpinning visual inspection as the primary tool for data analysis is that the single case experimental design is suited to treatment techniques which attain potent effects, and that the effects should be obvious through simple visual analysis of the data (Kazdin 1982). It is argued that visual analysis will ensure that errors in concluding that an effect is present when it is not (type 1 errors) will be minimised, at the expense of the possibility of errors in the form of failing to detect an effect when it is present (type 2 errors). When this claim has been empirically tested, however, support for it has not been found. James, Smith and Milne (1996) found a high rate of type 1 errors, and low rate of type 2 errors in a sample of Clinical Psychologists. This replicated the results from an earlier study by Matyas and Greenwood (1990).

The argument following from these findings is that statistical analysis should be used to support, rather than replace visual analysis (James et al 1996). Kazdin (1982) argues that the centrality of clinically significant change should be retained, but that some statistical analyses can support the process, particularly in the presence of unstable baseline data. The selection of tests will be determined by the nature of the baseline, and the extent to which descriptive analysis of the data meet requirements for their use. Where the significance of a change of mean is being investigated, conventional t and F tests may be considered (Kazdin 1982; Hersen 1990), despite these tests requiring independent samples. Examination of the extent of serial dependency should be undertaken prior to use of these tests, as a high level of serial dependency would make inappropriate the use of these tests (Kazdin 1982). Where a change in trend is being analysed for significance, or where serial dependency exists, the alternative recommended test is time-series analysis (Kazdin 1982; James et al 1996). However, the number of baseline points required to utilise time-series analysis, at a recommended minimum of fifty is problematic for this study (Hersen 1990).

Within this study, visual inspection of graphed data was utilised as the primary means of analysis (Kazdin 1982). Distribution curves for gambling behaviour data have been produced, indicating that data have tended to be highly skewed by the number of zeros, particularly in the treatment phases. Because of this, nonparametric tests such as the Mann-Whitney U were considered the most appropriate statistical means by which to evaluate changes between phases, once these were identified through visual inspection. The researcher was aware that undertaking a non-parametric test such as the Mann-Whitney U test breached assumptions within the tests of the independence of the groups of data (Hersen 1990). However, as the use of the tests was for confirmatory purposes only, and because conservative significance levels were used, this was considered defensible.

RESULTS

Sample

During the period April 1st 1995 to October 1st 1997 thirty five clients were referred to the service with an identified gambling problem. As noted in the methodology section fifteen of these clients entered the research, with three failing to complete the baseline period and three subsequently withdrawing from the research. Characteristics of the nine clients who make up the research sample are shown in table 6, together with details of those clients who withdrew from the research. As can be noted, the clients who continued were broadly comparable to those who withdrew across a range of demographic factors. In addition, the types of gambling involvement, number of reported gambling activities, number of DSM IV criteria (APA 1994) and scores on the South Oaks Gambling Screen (SOGS) (Lesieur and Blume 1987) were similar. In common with the majority of reported gambling studies, clients were predominantly male, and involved in a number of different gambling activities. The population recruited in this study also had a high level of psychiatric comorbidity, and previous criminal convictions. This would indicate that the efforts that were made to limit exclusion criteria were successful in recruiting a largely unselected clinical population. This increases the likelihood that the sample were representative of individuals with pathological gambling who would be seen in routine clinical settings.

Individual Single Case Experiments

In this section, following brief descriptive and treatment data, results from the nine research cases will be outlined. Data regarding change in gambling behaviour and gambling specific measures will be presented first. This information will be placed in the context of details of the treatment sessions received by each client. Then, for those clients for whom the information is available, data regarding gambling urges will be presented, linked again to the treatment received. Following this, the links between gambling behaviour, anxiety symptoms and depressed mood will be reported for each client.

Table 6.

Descriptive data for the research sample

Clients	Sex M:F	Age at Referral Mean : Range	Ethnic Origin	Forensic History	Previous Mental Health Contact	Caseness on BSI
Research Sample N=9	9 : 0	32.6 : 24 - 38	White: Black Caribbean: 1 Black Other: 1	Yes: 6 No: 3	Yes: 6 No: 3	Yes: 7 No: 2
Clients who withdrew from the research N=6	5 : 1	36.9 : 24 - 45	White: Black Caribbean: 0 Black Other: 0	Yes: 4 No: 2	Yes: 3 No: 3	Yes: 6 No: 0

Clients	Number of DSMIV Criteria Met at Research Entry	Scores on SOGS at Research Entry	Number of reported gambling activities	Significant Other with gambling problem	Current Gambling Activities
Research Sample N=9	Mean: 6.9 Range: 6 - 9	Mean: 13.3 Range: 10-19	Mean: 3.1 Range: 2 - 5	None: 3 One: 3 Two: 3	Horses: 7 Dogs: 6 Slots: 5 Casino: 1
Clients who withdrew from the research N=6	Mean: 6.3 Range: 6 - 7	Mean: 12.5 Range: 9-16	Mean: 4.2 Range: 2 - 9	None: 4 One: 2 Two: 0	Horses: 3 Dogs: 2 Slots: 3 Casino: 0

Information regarding the wider impact of treatment as indicated by the other measures will be reported. Finally, reasons given for dropping out of treatment will be reported. Personal information has been altered where necessary to maintain client confidentiality. Pseudonyms have been used to avoid having to use client numbers throughout the text.

Descriptive data

Client 1

At entry to the study Client 1 (Gareth) was a 32 year old single man, living with his parents. He was employed full time, as a skilled worker within an engineering firm, where he had worked throughout his adult life. He had an income of approximately £320 per week. His social network was linked largely to his work and local public house, and he reported a limited range of social interests, these primarily revolving around alcohol and gambling. Gareth was not in a relationship at entry to the study. A previous relationship had broken up because of his gambling. Three months prior to entry to the study he had been assessed by a Community Mental Health Nurse following a suicide attempt in which he took an overdose of paracetamol and alcohol. He reported a previous suicide attempt some five years prior to this. Following assessment by the Community Mental Health Nurse he had been referred to the gambling treatment service. Gareth reported alcohol use of approximately 35 units weekly. He was on no prescribed medication.

Gareth reported a 17 year history of gambling in off-course bookmakers and at dog tracks. His gambling had commenced when he was 15 years old. He considered that gambling had been problematic for him for 15 years. He reported more recent gambling on slot machines. At assessment Gareth was gambling in bookmakers several times each week, losing an average of £40 weekly. Prior to his overdose he reported losing an average of £250 a week over the previous five years. Following his overdose, he reported making serious efforts to cease gambling, engaging the support of a workmate, who began to hold most of his wages for him, and to support him in undertaking alternative activities. Despite this support he reported only managing to cease gambling for two weeks. His gambling losses were reported to have reduced primarily because he had

reduced his access to cash. Gambling during the six months prior to research entry was recorded, and is detailed below. He had debts of approximately £4,000 at assessment.

Gareth attended fourteen treatment sessions over twenty nine weeks. Following good initial attendance, his attendance became somewhat sporadic, with seven cancelled or missed appointments between treatment sessions six and fourteen. Treatment involved all elements of the protocol.

Client 2

At entry to the study Client 2 (David) was a 31 year old married man, living with his partner and their daughter. He had been unemployed throughout his adult life, apart from periods on training courses. He had an income of approximately £48 per week. David had a limited range of social interests, these primarily revolving around his family, alcohol and gambling. His social network consisted largely of other unemployed and self-employed individuals living in his immediate area. David had previously received psychological treatment for an anxiety disorder, which had largely resolved at the time of entry to the study. He reported alcohol use of approximately 40 units weekly, and prescribed medication of Clomipramine 30 mg daily and Carbamazepine 400 mg daily.

David reported an 18 year history of gambling in off-course bookmakers. This had commenced when he was 13 years old. He considered that gambling had been problematic for him for 12 years. At assessment David reported gambling several times each week, often losing more than his total income. He had no debts at assessment, reporting this to be as a result of his partner subsidising him from her income, which she managed separately.

David attended fourteen treatment sessions over twenty nine weeks. His attendance at times was sporadic, with eight cancelled or missed appointments. Treatment involved all elements of the protocol.

Client 3

At entry to the study Client 3 (Harold) was a 34 year old single man, living alone. He was employed full time in the retail trade, with an income of approximately £195 per week. His social interests were curtailed by financial difficulties resulting from his gambling, but he reported interests in watching football and going to pubs and night clubs. He had had no previous contact with the mental health services. Harold reported alcohol use of approximately 16 units weekly, and no prescribed medication.

Harold reported a 16 year history of gambling in both slot machine arcades and off-course bookmakers. This had commenced when he was 18 years old, when he began to accompany a colleague to a slot machine arcade during his lunch break. He considered that gambling had rapidly become problematic for him, with solitary gambling developing, and the selling of possessions to fund gambling. Harold reported that gambling had been problematic for him for 15 years, initially only on slot machines, but then also on dog races. He had stopped for three years some six years before assessment, but had recommenced gambling in the context of difficulties in his relationship. Over the three years before assessment commenced he reported never having stopped gambling for longer than eight weeks. At entry to the research Harold reported not having gambled for five weeks, following the threat to his job from having been caught “borrowing” funds from his employer. During the six months prior to entry to the research, he reported gambling approximately £500 a month, in daily amounts of £50 to £100 each day following his monthly pay date. He would then struggle to survive on very limited money, and would “borrow” money from his employer to cover his living expenses, and sometimes in an attempt to win back money he had lost. He had debts of £900 at assessment.

Harold attended sixteen treatment sessions over twenty one weeks. Having failed to attend his first treatment session, he was contacted by letter, and encouraged to attend. He commenced treatment six weeks late, giving a twelve week baseline. This breached the plan for a fixed length baseline, and will be discussed below. His attendance at sessions was good, with just two cancelled appointments. Treatment involved all elements of the protocol. Harold failed to attend planned follow-up sessions despite

encouragement to do so, and attended his first follow-up session at six months.

Client 4

At entry to the study Client 4 (Ernest) was a 24 year old single man. He was unemployed, having lost his job three months previously when he failed to return to work following his lunch hour because he was gambling on slot machines within an arcade. He lived with his parents, and was in receipt of unemployment benefit of £44 per week.

Ernest reported having first gambled in a slot machine arcade with friends at the age of 15. Fairly soon after commencing playing regularly in arcades he recalled having won a £10 cash jackpot which he subsequently lost back in the machine. Ernest reported that his gambling increased from that occasion onwards, with regular efforts to win back money he had lost previously. He reported playing slot machines regularly throughout his late teens, and early twenties, with no period of longer than a month without gambling since he was 15.

Ernest reported beginning to utilise amphetamines from the age of 18, initially at weekends and subsequently more frequently. He reported utilising amphetamines before going to work, and losing jobs as a result of this. Amphetamine use was reported to be linked to gambling in that he would often gamble when “coming down” from amphetamines.

Ernest had a criminal record for shoplifting and theft from cars to sell items to pay for amphetamines and gambling. At entry to the study he was not on probation, but had voluntary contact with the probation service. He had debts of approximately £2,150, mainly linked to loans taken out to fund gambling. He had also taken out loans to buy electrical equipment which he had subsequently sold to fund amphetamine use and gambling. At entry to the study Ernest identified his main problem as being gambling rather than amphetamine use. He had not gambled for three weeks prior to entry to the study, reporting that losing his job as a result of not returning to work because he was gambling had increased his motivation to overcome his gambling problem.

Ernest attended eleven treatment sessions over twenty five weeks. The first six sessions occurred over a six week period, with one missed appointment, and repeated late attendance for appointments. Treatment focused on motivational interviewing, assessment, self-monitoring, education regarding the model, the introduction of stimulus control strategies and problem solving difficulties with the approach. The sessions were characterised by a lack of concentration on Ernest's part and a failure by him to undertake agreed tasks between sessions. He reported utilising amphetamines several times weekly through this period and ascribed his disorganisation to his drug use. At session six the therapist made clear to Ernest that whilst the therapy could be helpful for him, it was unlikely to be effective if he failed to apply himself to the approach. Over the next five weeks, Ernest cancelled his next two appointments, and failed to attend the third. Following telephone contact, the therapist and Ernest agreed to suspend treatment for an initial period of six weeks. It was agreed that treatment would resume if Ernest was able to cease regular amphetamine use, with the support of the probation service.

After a break of seven weeks, a review meeting was held to discuss further treatment. Ernest reported having ceased amphetamine use four weeks previously following an incident of deliberate self-harm involving cutting his wrists. The recommencement of therapy was agreed, and this occurred three weeks later. Ernest attended four further treatment sessions at weekly intervals. These sessions included motivational interviewing, further education regarding the model, self-monitoring, stimulus control strategies, cognitive restructuring and one session of accompanied cue exposure to a slot machine arcade. Following treatment session eleven, Ernest cancelled two sessions, attended one appointment at the wrong time, and then failed to attend two further appointments.

Client 5

At entry to the study Client 5 (Kevin) was a 38 year old man, living with his partner of five years. He was in receipt of Industrial Injury benefit of £70 per week following a work accident which had resulted in an injury to his foot some eight years previously.

Prior to his injury he had been a fit and active man, spending nine years in the army. He continued to have limited use of his foot, and was involved in an ongoing compensation claim for his injury. He reported excessive use of alcohol at times as a strategy to relieve the pain in his foot, and low mood regarding the loss of functioning resulting from the accident.

Kevin reported having gambled in off-course bookmakers, and at dog and horse racing tracks since his late 'teens. Throughout his period within the army he had gambled regularly, but did not consider this problematic until a relationship with a girlfriend was affected by his gambling when he was 28. Following the break-up of his relationship he reported gambling approximately £100 per week, but managed to control this himself without assistance. Following his industrial injury Kevin reported he had experienced symptoms characteristic of Post Traumatic Stress Disorder (American Psychiatric Association 1994), specifically intrusive memories in the form of 'flashbacks' regarding the accident, a generally raised state of arousal, and avoidance of thinking or talking about the accident over an extended period. He reported excessive alcohol use as a coping strategy, and increased gambling from that period on. He continued to experience intrusive memories regarding the accident, and reported a continued raised state of arousal. Over the eight years since the accident he had gradually increased his involvement in gambling, to the extent that he was gambling approximately £150 per week six months prior to referral. Kevin reported having reduced his gambling in response to pressure from his girlfriend over the four months prior to entry to the research, reporting gambling only approximately £10 per week over the three months prior to entry to the research.

Kevin attended nine sessions of treatment over a ten week period. Attendance was good with only one cancelled session. Treatment included motivational interviewing, assessment, self monitoring utilising the gambling urges diary, education regarding the model, the introduction of stimulus control strategies, the introduction of problem solving approaches, and cognitive restructuring.

Client 6

At entry to the study Client 6 (John) was a 36 year old married man. He was separated from his partner of 10 years, and their two children, aged six and four. He was employed as a commission-only salesman, earning approximately £100 per week.

John reported having commenced gambling at the age of 12, when he used to play cards at school, and place any winnings on horses in off-course bookmakers. He had gambled consistently since his late teens, primarily gambling in off-course bookmakers. John considered that his gambling had always been problematic, with him utilising all available moneys for gambling. He would gamble with increasing amounts of money, exhausting legal sources of money, and then had stolen from his employers on a number of occasions to fund gambling. John had four convictions for theft from employers, and had served two prison terms for theft. At entry to the study he was awaiting sentencing for the theft of £4,000 from his previous employer. He reported debts of approximately £12,000. John reported having lost £1,000 the day before entering baseline. He met DSM IV criteria for pathological gambling (APA 1994), and scored 17 on the SOGS (Lesieur and Blume 1987) at entry to the research.

John attended four treatment sessions over twelve weeks, with cancellation by John of treatment sessions repeatedly. Treatment included motivational interviewing, assessment, education regarding the model, the introduction of stimulus control strategies, and an introduction to cognitive restructuring.

Client 7

At entry to the study Client 7 (Charles) was a 33 year old divorced man. He was unemployed, having been sacked from his previous employment as a sales representative following admitting the theft of just under £10,000 from them. At entry to the research Charles was awaiting sentencing for this offence. During the baseline period he became a self-employed sales representative.

Charles reported having commenced gambling in off-course bookmakers at the age of

fourteen, in the company of his father. He reported a continuing interest which had increased at the age of fifteen, following the winning of approximately £5,000 from a £1 stake, together with his father. Charles reported subsequently gaining employment in the gambling industry, and beginning to “borrow” money from his employers from the age of sixteen. He would use these funds to place his own bets. He reported that his gambling had been problematic since that time, with the loss of several jobs, two previous criminal convictions, and the loss of friends and close relationships as a result of his gambling. Charles had attended Gamblers Anonymous for a number of years at the time of assessment, and stated he considered himself a compulsive gambler.

Charles reported not having gambled for seven weeks prior to entry to the study, this abstinence having commenced when he disclosed to his employer his theft of nearly £10,000 over a five month period. He reported other debts of £24,000 as a result of gambling. Charles attended three treatment sessions covering the assessment, self-monitoring, motivational interviewing, and educational aspects of the protocol.

Client 8

At entry to the study Client 8 (Anthony) was a 27 year old single man living alone. He suffered from schizophrenia, which was well controlled, and was on invalidity benefit of £69.75 per week. Anthony was on probation at the time of his referral, and had psychiatric and social work input also. Anthony was prescribed psychotropic medication in the form of an intramuscular injection weekly, and Benzotropine 2mg daily. He drank approximately 10 units of alcohol weekly.

Anthony reported having commenced gambling in bookmakers in the company of an uncle at the age of 13. He reported problems with gambling to excess from the age of 18. He gambled primarily in off-course bookmakers and on slot machines, and at entry to baseline reported having lost approximately £700 in the previous two weeks. This had been largely money from a grant he had received to assist with his rehousing from a hostel where he had been resident, to his own flat.

Anthony attended one treatment session, before ceasing to attend. This treatment session focused on a motivational approach, with discussion related to the decisional balance and ambivalence. It was noted that Anthony appeared somewhat impatient with this approach, asking about how to change rather than why. Following non attendance at his second treatment session, efforts were made to contact him, and he indicated on the telephone the intention to attend further appointments. Subsequently, he gave his reason for non-attendance that “I can only help myself”.

Client 9

At entry to the study Client 9 (Fred) was a 34 year old single man, who was separated from his partner of five years, and their daughter. He was unemployed, with an income of £55 per week, and lived alone. He had last worked six months previously, in the steel industry, losing his job following an extended period of sickness due to depression. He had received treatment from the mental health service for his depression, and then been referred for his gambling problem by his Community Psychiatric Nurse.

Fred reported having commenced gambling at the age of sixteen, in the context of his family being involved in greyhound racing. He had gambled throughout his adult life, but considered that it had become problematic four years before assessment. At this time he reported an increased income, together with increasing responsibilities within his relationship as he became a father. He reported beginning to cover up his gambling, and to gamble excessively in an attempt to recover previous losses. He reported losing approximately £150 per week from an income of approximately £220, with resulting arguments with his partner, and eventual relationship breakdown. At entry to the study Fred reported losing approximately £40 per week gambling in the three months before research entry. He had no debts, reporting that his parents were supporting him financially by paying his bills.

Fred attended one treatment session, before ceasing to attend. This treatment session focused on a motivational approach, with discussion related to the decisional balance and ambivalence. Prior to the second planned session Fred telephoned the therapist to cancel,

stating that the previous session had been too upsetting, and that focusing on his gambling behaviour and its consequences was too difficult. Despite the offer of further sessions to discuss his distress in response to treatment, Fred failed to attend any further sessions, and was discharged.

Gambling behaviour outcomes

Treating the intervention as a single undifferentiated independent variable, results are presented here of the overall change across study phases. The main outcome reported is gambling behaviour as collected through the use of daily diaries. In addition scores on the South Oaks Gambling Screen (Lesieur and Blume 1987) and on the problem and target statements (Marks 1986) are reported. For purposes of analysis, gambling data from the behaviour diaries has been grouped in weekly blocks. In analysing the visual presentation of gambling behaviour graphs, issues of level, mean and trend have been considered, together with the latency of any change. In addition, statistical analysis of the blocked data has been undertaken where appropriate.

Client 1 Gareth

Gambling behaviour was recorded on daily diaries throughout baseline, treatment and follow-up phases. Figure 3 is an example of data collected during baseline for Gareth. The notations SM and HR refer to slot machine and horse-racing gambling respectively.

Figure 4a is a graph of frequency of gambling through baseline (A), treatment (B) and ten week follow-up (F/up) phases. Figure 4b is a graph of duration of gambling (time spent in the gambling environment) for the same periods. Figure 4c is a graph of financial losses for the same periods. There is an evident change in mean between baseline and treatment phases for all the graphs. In addition, despite the baselines being unstable, there is a clear change in level for gambling frequency and duration, around week 20, representing a latency of approximately fourteen weeks. The instability of the baseline for gambling losses relates to the fact that, with higher frequency of gambling, the frequency with which Gareth won, as well as lost, increased.

Gareth did not cease gambling through treatment, but when different forms of gambling are disaggregated, a clearer effect on horse and dog racing related gambling is evident. Figure 5 shows frequency, duration and financial losses related to all betting other than slot machines, indicating a more marked change in trend and mean, than for the combined gambling graph. This was clinically significant in that, mid way through treatment, Gareth identified a wish to continue gambling on slot machines, in a social context, and for limited amounts. He was able to achieve this goal.

Follow-up data for Gareth indicate maintenance of the gains made in treatment, with gambling reported being universally related to slot machines.

Statistical analysis of Gareth's data was undertaken on the blocked data utilising a Mann-Whitney U Test. Results of the analysis are shown in table 7, which also includes an analysis of data excluding all incidences of slot machine gambling. This analysis supports the visual analysis in identifying a statistically significant change between baseline and treatment phases on gambling frequency ($p < .05$), duration ($p < .05$) and losses ($p < .05$). This change was maintained through the ten week follow-up.

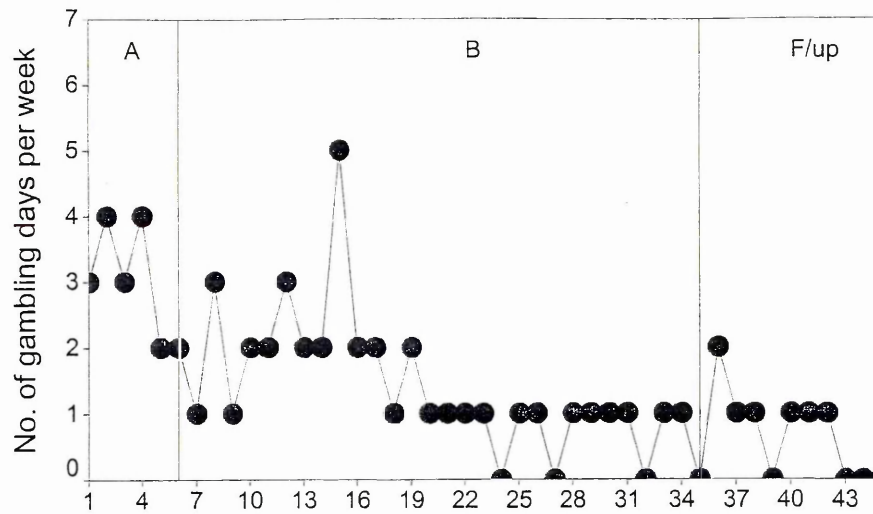
Gareth also retrospectively reported gambling behaviour for the six month period prior to entry to the research. The Time-line follow-back method (Sobell et al 1980) was utilised to maximise the accuracy of this information. Data are shown in figure 6, and include only gambling on horse and dog racing. The week when Gareth took an overdose is indicated on the graph. The graphed data indicate the stability of Gareth's gambling behaviour prior to intervention, albeit with a reduction in frequency of gambling and financial losses following his overdose. This adds to the detailed baseline information.

On the South Oaks Gambling Screen (Lesieur and Blume 1987), Gareth scored 12 at entry to the research, this increasing to 15 by the first treatment session. He scored 2 at discharge into follow-up, supporting the clinical significance of the reported behaviour change.

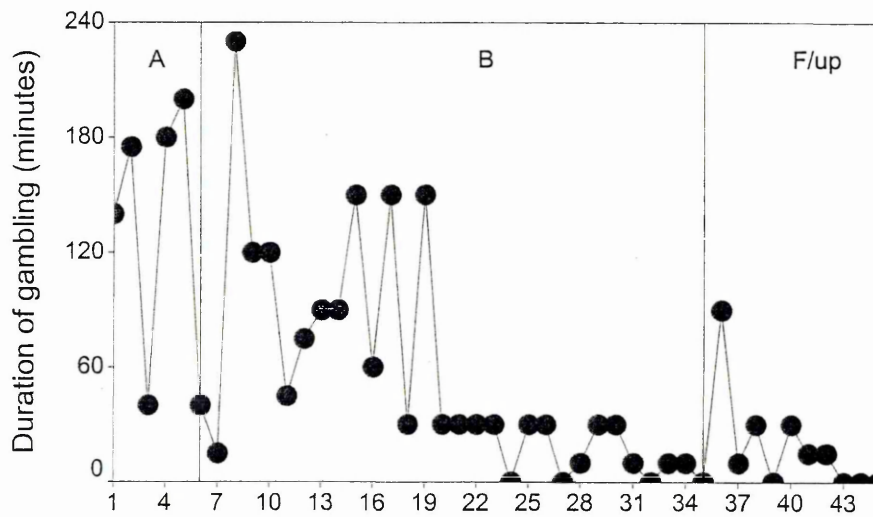
GAMBLING BEHAVIOUR DIARY

Week 16/9/96 Commencing	Gambled? Y/N	Total Time Hrs. Mins.	Won/Lost W/L	£	
Monday					
6 am - 2 pm	YES	10 min	lost	£5	SM
2 pm - 10 pm	No				
10 pm - 6 am	No				
Tuesday					
6 am - 2 pm	YES	15 min	Won	£3	SM
2 pm - 10 pm	n/				
10 pm - 6 am	n/				
Wednesday					
6 am - 2 pm	No				
2 pm - 10 pm					
10 pm - 6 am					
Thursday					
6 am - 2 pm	YES	30 min	lost	£12.	SM
2 pm - 10 pm	No				
10 pm - 6 am	No				
Friday					
6 am - 2 pm	No				
2 pm - 10 pm	Yes	2 hrs	Lost	£35	HR
10 pm - 6 am	No				
Saturday					
6 am - 2 pm	No				
2 pm - 10 pm	No				
10 pm - 6 am	No				
Sunday					
6 am - 2 pm	No				
2 pm - 10 pm	YES	15 min	Won	£5	SM
10 pm - 6 am	No	76			

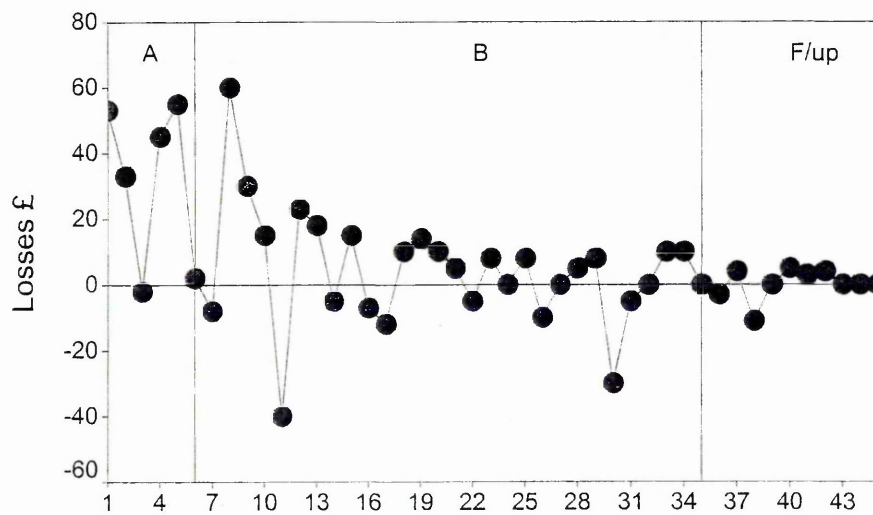
4a. Frequency of gambling



4b. Duration of gambling

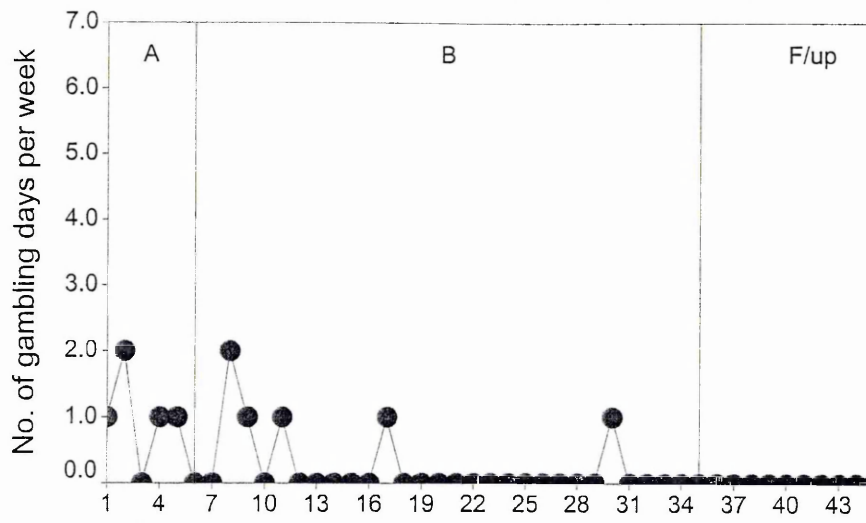


4c. Financial losses

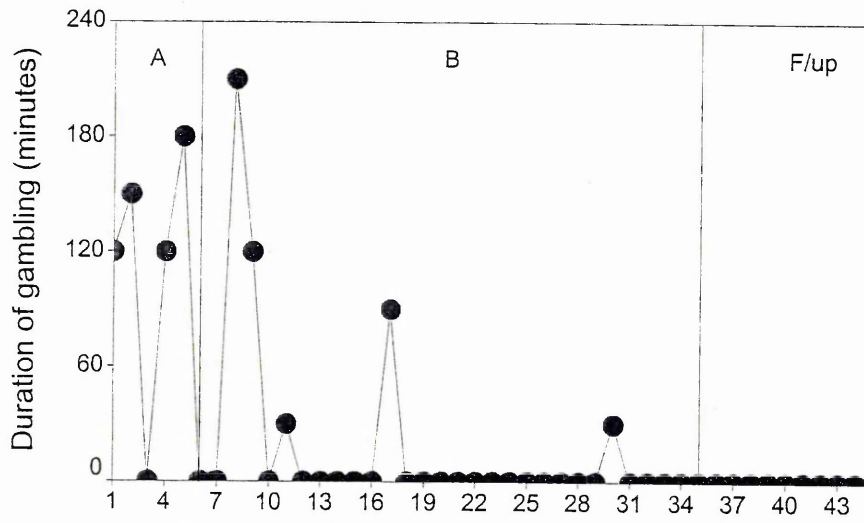


Week. Baseline: 1-6 Treatment: 7-35 Follow-up: 36-45

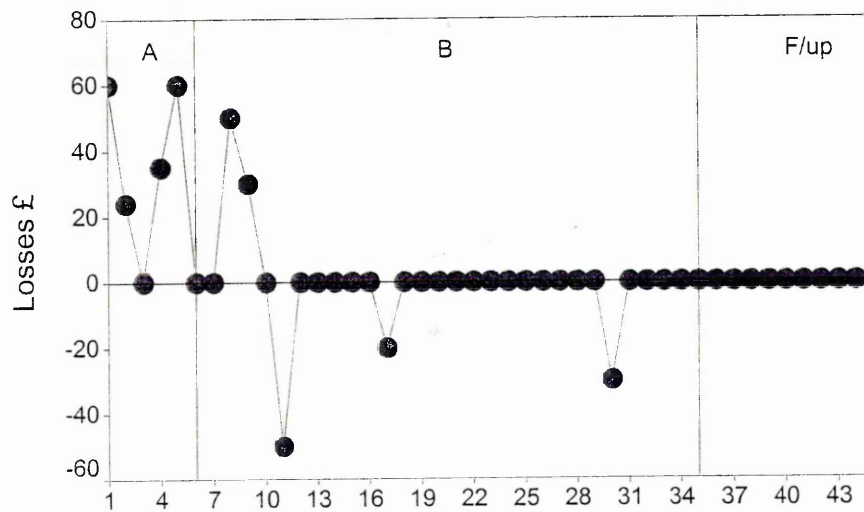
5a. Client 1. Frequency of gambling



5b. Duration of gambling



5c. Financial losses



Week. Baseline: 1-6 Treatment: 7-35 Follow-up: 36-45

Table 7.
Analysis of gambling behaviour, Client 1
Mann-Whitney U

Gambling Measure	Mean Ranks		U	Z	2-tailed P
	A (n=6)	B (n=29)			
Frequency	29.33	15.66	19.0	-3.1341	.0017 **
Duration	27.67	16.00	29.0	-2.5651	.0103 *
Financial Losses	25.83	16.38	40.0	-2.0615	.0393 *
	B (n=29)	F/up (n=10)			
Frequency	21.97	14.30	88.0	-1.9905	.0465 *
Duration	22.24	13.50	80.0	-2.1272	.0334 *
Financial Losses	21.24	16.4	109.0	-1.1643	.2443
All gambling excluding slot machines.	A (n=6)	B (n=29)			
Frequency	25.25	16.5	43.5	-2.4949	.0126 *
Duration	26.00	16.34	39.0	-2.7360	.0062 **
Financial Losses	27.33	16.07	31.0	-3.1905	.0014 **
	B (n=29)	F/up (n=10)			
Frequency	20.86	17.50	120.0	-1.3861	.1657
Duration	20.86	17.50	120.0	-1.3842	.1663
Financial Losses	19.83	20.50	140.0	-2.768	.7819

Figure 6. Pre-baseline gambling. Client 1

6a. Frequency of gambling

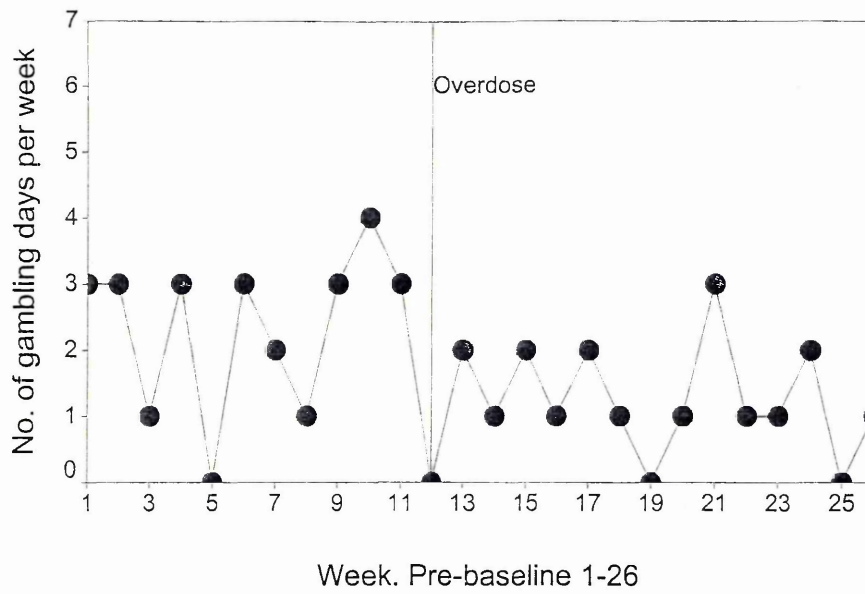


Figure 6.

6b. Financial losses

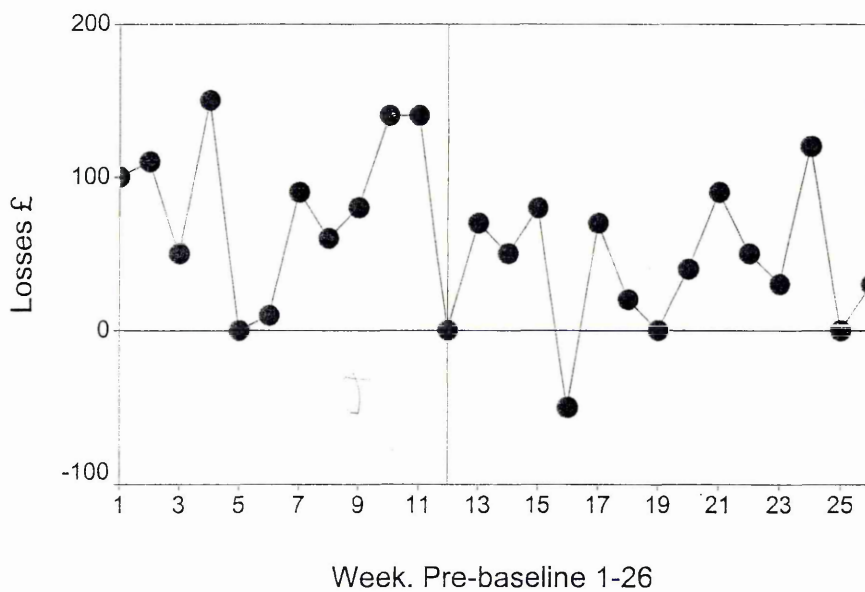


Table 8.
Other gambling outcome measures for Client 1

Stage	Week	SOGS score (0-20)	Problem 1 Gambling (0-8)	Target 1 Control of gambling	Target 2 Not gamb. when upset	Target 3 New activities
Research Entry	0	12	--	--	--	--
Treatment session 1	6	15	Week8 5.5	Week9 6.5	7.0	7.0
Treatment session 7	13	--	5.5	5.5	5.5	7.5
Treatment session 10	19	--	4.0	5.0	2.5	7.0
Discharge	35	2	2.0	1.0	1.0	3.5

There is also a marked reduction through treatment on the gambling related problem and target statements (Marks 1986), with minimal levels of difficulty at discharge. These are shown in table 8 and indicate that Gareth considered himself considerably improved. The change in the target regarding not responding to being upset by gambling is important since a common trigger to gambling for Gareth was interpersonal disputes at work. Unfortunately no ratings were taken at follow-up. The 'new activities' target reduces less than the gambling specific targets, possibly relating to the time-lag associated with Gareth developing new social relationships, a focus of problem solving within therapy.

Client 2 David

Gambling behaviour was recorded on daily diaries throughout baseline, treatment and follow-up phases. Figure 7 is an example of data collected during baseline for David. Figure 8a is a graph of frequency of gambling through baseline (A) and treatment (B) phases. Figure 8b is a graph of duration of gambling (time spent in the gambling environment) for the same periods. Figure 8c is a graph of financial losses for the same periods. What is evident from the graphs is that a reduction in level and mean occurred within both the frequency and financial losses between baseline and treatment phases, but that the level for gambling duration initially increases before reducing. That is, David was spending a longer period on average in the gambling environment on each occasion he gambled, at least initially. There is also a clear increase in variability of financial losses during the treatment phase, with David having a number of periods of net wins. At no point during treatment did David cease gambling for a period longer than 14 days

Figures 9a, 9b and 9c show twelve month follow-up data for David, on the same measures. All three indicate an increasing degree of variability in behaviour, with loss of gains during treatment. In particular weeks 78-91 show a return to high levels of gambling, similar to those at baseline.

Statistical analysis of David's data was undertaken on the blocked data. A non-parametric test assuming baseline, treatment and follow-up phases represent independent samples (Mann-Whitney U) was used. Table 9 shows details of the results of the tests.

These support the visual analysis in indicating significant reductions in gambling frequency ($p < .01$) and financial losses ($p < .05$) between baseline and treatment phases. Changes to gambling duration were non-significant. Overall follow-up levels of gambling frequency and losses were not significantly greater than during the treatment phase, with gambling duration being significantly reduced ($p < .01$).

In contrast to the changes in gambling behaviour, David's scores on the modified SOGS (Lesieur and Blume 1987) did not reduce between entry to the research and end of treatment, with scores of 10 at both points. During follow-up, scores on the SOGS increased to 12-14. Scores on the problem and target statements (Marks 1986) are shown in table 10 and indicate a clear reduction through the treatment period in the problem and target scores relating to gambling. This change is sustained through to the 6 month follow-up point. There is some loss of gains on the problem and target ratings at the 12 month follow-up point, albeit not to the level of initial ratings.

Client 3 Harold

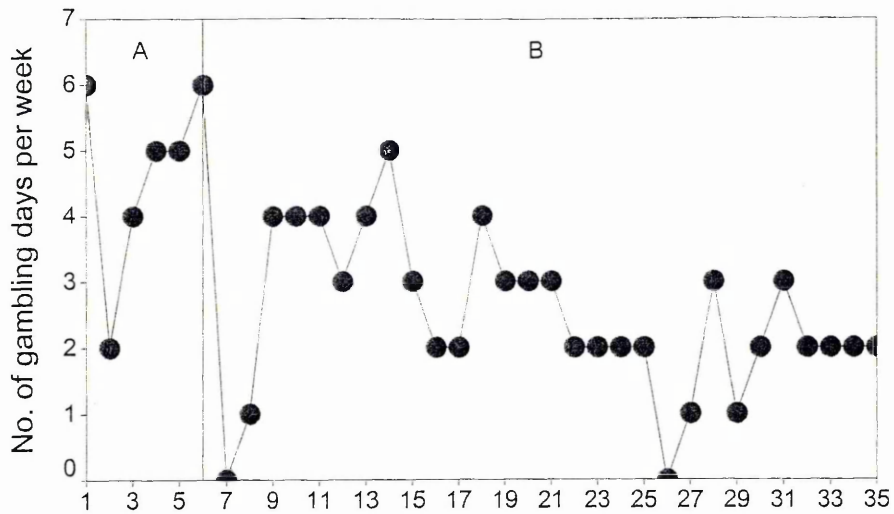
Gambling behaviour was recorded on daily diaries throughout baseline, treatment and follow-up phases. As noted above the baseline period for Harold was of twelve weeks duration. Harold gambled £2 on the National Lottery Draw most weeks, this being unrelated to other gambling. National Lottery Draw gambling has therefore been excluded from the graphs and analysis.

Figure 10a is a graph of frequency of gambling through baseline (A) and treatment (B) phases. Figure 10b is a graph of similarly blocked duration of gambling (time spent in the gambling environment) for the same periods. Figure 10c is a graph of financial losses for the same periods. As can be noted the baseline is unstable, with no gambling for most weeks, followed by a period, during weeks seven to nine where there is a high frequency, duration and large losses from gambling. As reported previously Harold's gambling at this time followed an escalating pattern of "chasing losses". Figure 11 is an example of a diary for the period covering week seven of the baseline. During treatment, there was a similar period of "chasing losses" following treatment session 7. See figure 12 for the

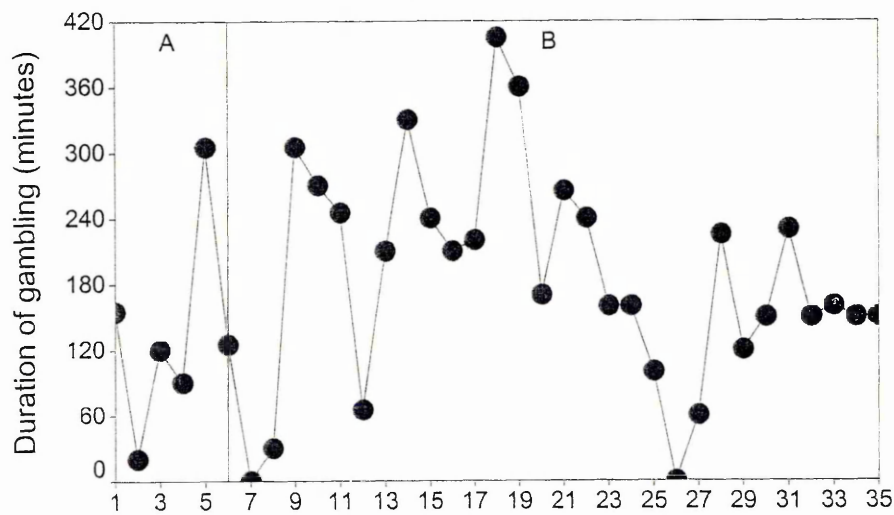
GAMBLING BEHAVIOUR DIARY

Week 4/12/95 Commencing	Gambled? Y/N	Total Time Hrs. Mins.	Won/Lost W/L	£
Monday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Tuesday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Wednesday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am	-Y	1-1 hour	L	£30
Thursday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am	-Y	2½-Hours	L	£80
Friday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am	-Y	20 mins	L	£20
Saturday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am	-Y	1-Hour	L	£25
Sunday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am	N			

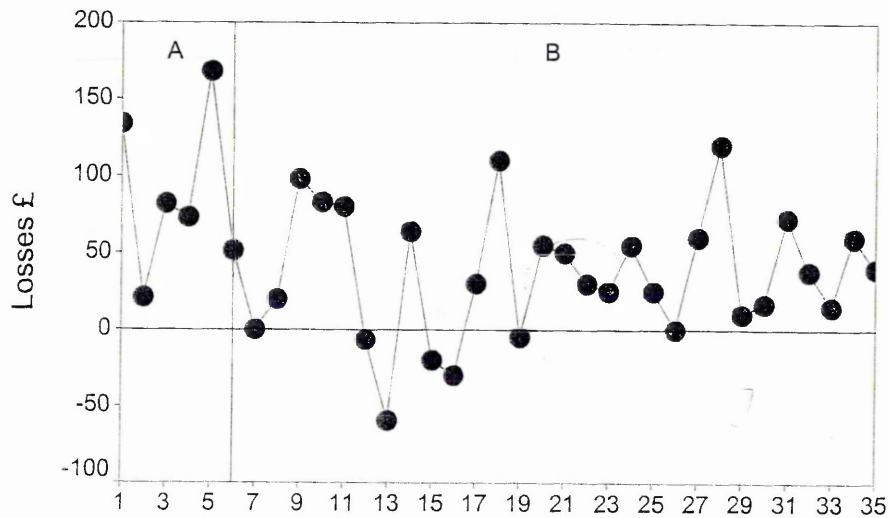
8a. Frequency of gambling



8b. Duration of gambling

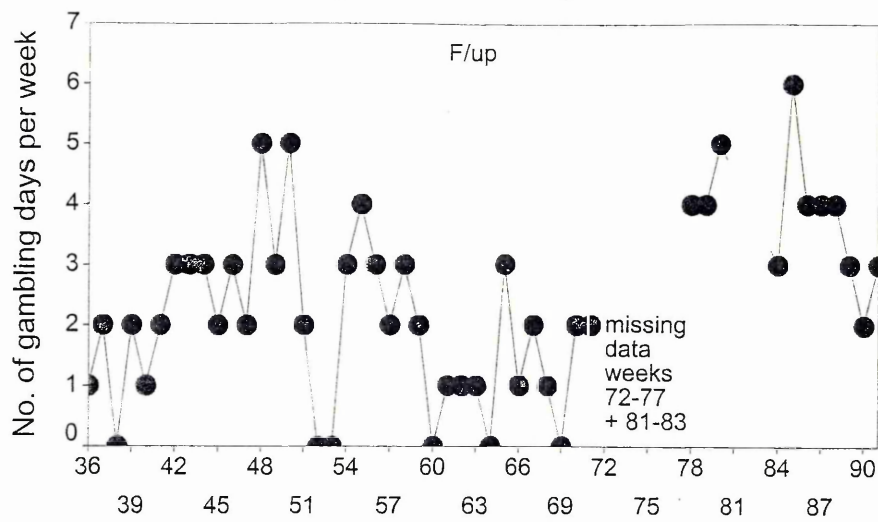


8c. Financial losses

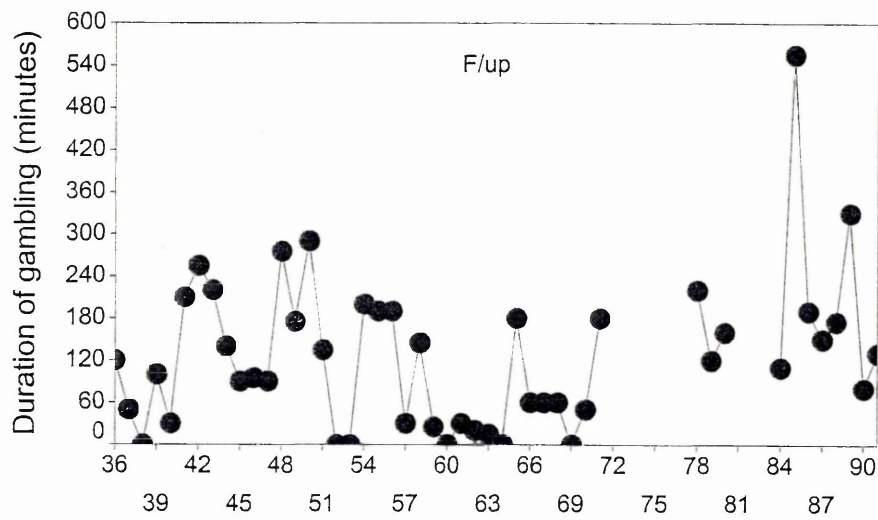


Week. Baseline: 1-6 Treatment: 7-35

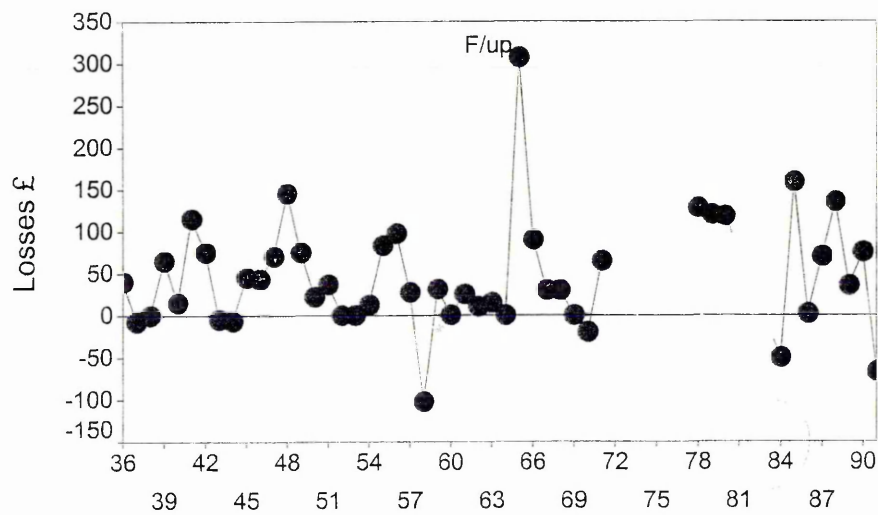
9a. Frequency of gambling



9b. Duration of gambling



9c. Financial losses



Week. Follow-up: 36-91

Table 9.
Analysis of gambling behaviour, Client 2
Mann-Whitney U

Gambling Measure	Mean Ranks		U	Z	2-tailed P
	A (n=6)	B (n=29)			
Frequency	28.67	15.79	23.0	-2.8804	.0040 **
Duration	13.00	19.03	57.0	-1.3148	.1886
Financial Losses	26.17	16.31	38.0	-2.1454	.0319 *
	B (n=29)	F/up (n=47)			
Frequency	39.31	38.00	658.0	-.2578	.7966
Duration	47.19	33.14	429.5	-2.6975	.0070 **
Financial Losses	37.17	39.32	643.0	-.4120	.6803

Table 10.
Other gambling outcome measures for Client 2

Stage	Week	SOGS score (0-20)	Problem 1 Gambling (0-8)	Problem 2 Alcohol (0-8)	Target 1 Gamble no more than £20 weekly	Target 2 Less personal disputes	Target 3 Increased activity
Research Entry	0	10	--	--	--	--	--
Treatment session 1	6	--	Week 8 6.0	5.5	Wk 10 6.0	6.5	7.0
Treatment session 4	12	--	6.5	6.0	5.5	5.5	6.0
Treatment session 7	19	--	5.0	5.5	5.5	5.0	4.0
Treatment session 11	28	--	3.5	3.0	4.0	3.0	3.0
Discharge	35	10	3.0	4.0	3.0	4.0	2.5
7 week follow-up	42	--	4.0	3.0	3.5	4.5	3.0
4 month follow-up	54	13	3.0	3.0	3.0	4.0	2.0
6 month follow-up	61	12	3.0	4.0	3.0	4.0	3.0
12 month follow-up	85	14	4.5	4.0	5.5	4.0	5.5

daily diaries for this period of gambling.

Interpreting these graphs utilising visual analysis is difficult, because of the highly unstable nature of the baseline, which limits its predictive value. In addition, the baseline was not of the fixed length planned, but six weeks longer. Whilst the change could be ascribed to the effect of therapy, other explanations could be forwarded to explain the cessation of gambling following week 22. Specifically, Harold's loss of £555 during week 22 may have been associated with subsequent cessation of gambling, rather than treatment. Gambling urge data reported below support the view that treatment may have resulted in the behaviour change.

An additional issue is Harold's reported pre-treatment pattern of gambling mainly following being paid each month. Harold's pay-days are included on figure 10. This does indicate a link between being paid and gambling, and goes some way to explaining the highly unstable nature of his baseline.

Figure 13 shows six month follow-up data for Harold on the same measures. This shows that Harold maintained the change in his behaviour for over three months before any resumption of gambling occurred.

Statistical analysis of Harold's data was undertaken on the blocked data utilising a Mann-Whitney U test. Results of the analysis are shown in table 11. The statistical analysis supports the difficulty of interpretation of the graphed data, specifically because of the cyclical nature of Harold's gambling. None of the phase comparisons are statistically significant.

Overall, the instability of the baseline and treatment data makes it difficult to interpret. The pattern of gambling behaviour is open to explanations other than that the treatment was having the effect. Specifically, the latency of the change, as evidenced by the gambling behaviour during weeks 19 and 22 is problematic. Following that period however, a change in behaviour occurs which was sustained through the first five months

of follow-up. There is a resumption of gambling at weeks 58 to 60 of follow-up, with Harold again reporting chasing behaviour to recoup losses from gambling. No further follow-up data is available, due to subsequent non-attendance at sessions.

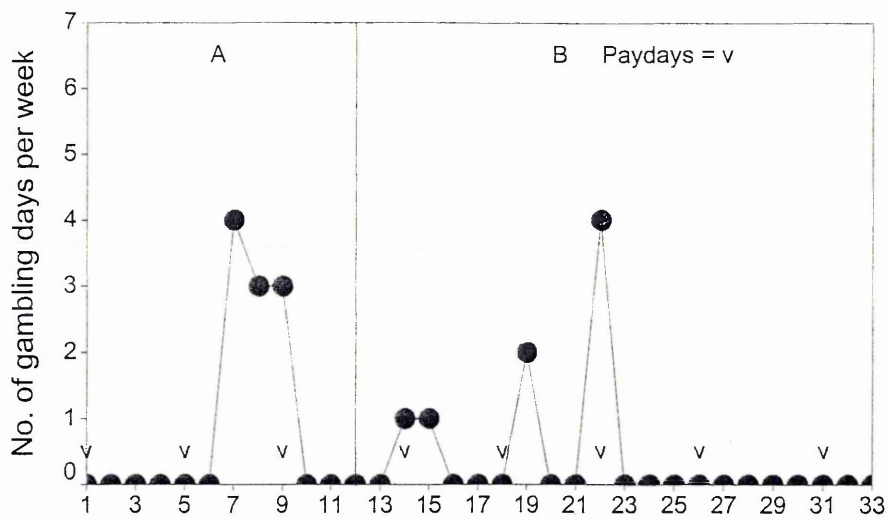
Scores on the SOGS (Lesieur and Blume 1987) for Harold reduced from 14/12 for entry to the study and treatment session 1 to 10 at the end of treatment. As noted Harold failed to attend any follow-up sessions until six months after the end of treatment, by which point he had resumed gambling. His score on the SOGS at six month follow-up was 16. Scores on the problem and target statements (Marks 1986) are given in table 12 and show clear improvement through treatment, with partial loss of gains at follow-up. They indicate that Harold markedly improved his perceived self-efficacy with regard to control of gambling behaviour by the end of treatment, and support a positive interpretation of changes in measures of gambling behaviour.

Client 4 Ernest

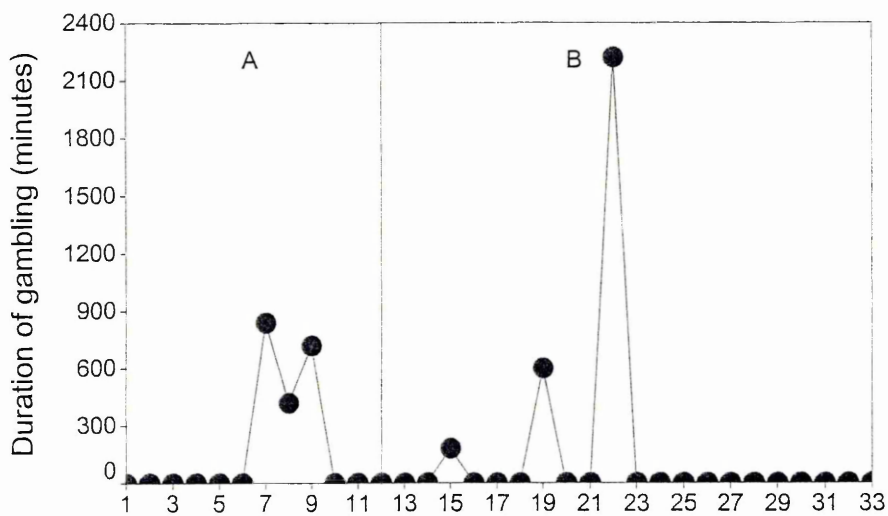
Gambling behaviour was recorded on daily diaries throughout baseline and treatment phases. As a result of the suspension of treatment following treatment session six there is some missing data.

Figure 14a is a graph of weekly frequency of gambling through baseline (A) and treatment (B) phases. Figure 14b is a graph of similarly blocked duration of gambling (time spent in the gambling environment) for the same periods. Figure 14c is a graph of financial losses for the same periods. Gambling during baseline was limited to two occasions totalling two minutes and £2.40 lost. Gambling in treatment remained infrequent, but the duration of episodes of gambling increased, and the size of losses increased also. Following the recommencement of therapy gambling frequency remained low, with duration and losses remaining highly variable. Overall there is no evident benefit from treatment on the gambling behaviour measures. Given the low frequency of episodes of gambling during the baseline, statistical analysis of the data are not warranted.

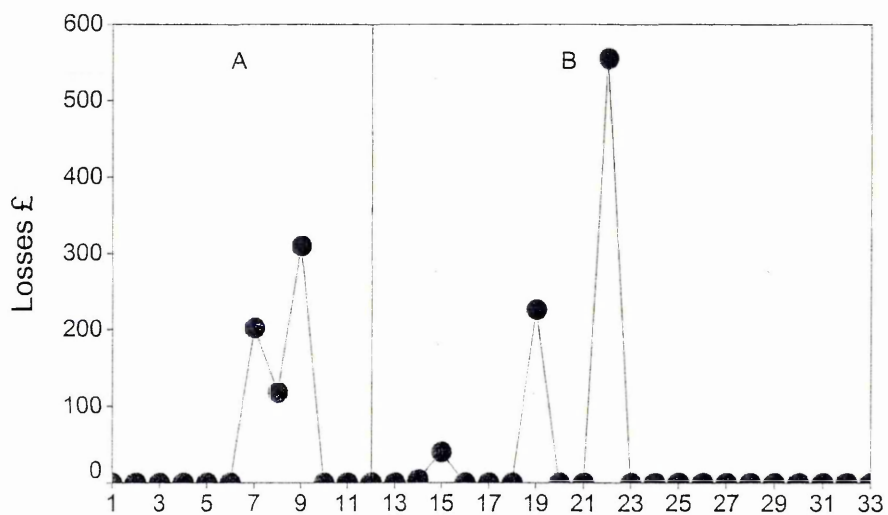
10a. Frequency of gambling



10b. Duration of gambling



10c. Financial losses



Week. Baseline: 1-12 Treatment: 13-33

GAMBLING BEHAVIOUR DIARY

Week 2/12/96. Commencing	Gambled? Y/N	Total Time Hrs. Mins.	Won/Lost W/L	£
Monday				
6 am - 2 pm	—	—	—	—
2 pm - 10 pm	—	—	—	—
10 pm - 6 am	—	—	—	—
Tuesday				
6 am - 2 pm	—	—	—	—
2 pm - 10 pm	—	—	—	—
10 pm - 6 am	—	—	—	—
Wednesday				
6 am - 2 pm	—			
2 pm - 10 pm	Y Y	1 HR }	L	£ 15
10 pm - 6 am	Y	1 HR }	L	£ 25
Thursday				
6 am - 2 pm	—	—	—	—
2 pm - 10 pm	—	—	—	—
10 pm - 6 am	Y	1 HR	L	£ 30
Friday				
6 am - 2 pm	—	—	—	—
2 pm - 10 pm	Y	4 HRS	L	£ 80
10 pm - 6 am	—	—	—	—
Saturday				
6 am - 2 pm	Y	5 HRS	L	£ 60
2 pm - 10 pm	Y	2 HRS	W	£ 8
10 pm - 6 am	—	—	—	—
Sunday				
6 am - 2 pm	—	—	—	—
2 pm - 10 pm	—	—	—	—
10 pm - 6 am	—	92	—	—

SM

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Figure 12.
Example of gambling behaviour diary during treatment. Client 3

GAMBLING BEHAVIOUR DIARY

Week 17/3/97 Commencing	Gambled? Y/N	Total Time Hrs. Mins.	Won/Lost W/L	£
Monday				
6 am - 2 pm	N			
2 pm - 10 pm	N			
10 pm - 6 am	N			
Tuesday				
6 am - 2 pm	N			
2 pm - 10 pm	N			
10 pm - 6 am	N			
Wednesday				
6 am - 2 pm	N			
2 pm - 10 pm	N			
10 pm - 6 am	N			
Thursday				
6 am - 2 pm	N			
2 pm - 10 pm	N			
10 pm - 6 am	N			
Friday				
6 am - 2 pm	Y } BOOKIES	9 HRS	L	60
2 pm - 10 pm	Y } MACHINES			
10 pm - 6 am	N			
Saturday				
6 am - 2 pm	Y } BOOKIES	10 HRS	L	125
2 pm - 10 pm	Y } MACHINES			
10 pm - 6 am	N			
Sunday				
6 am - 2 pm	Y } BOOKIES	8 HRS 93	L	175
2 pm - 10 pm	Y } MACHINES			
10 pm - 6 am	N			

Bookies/
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GAMBLING BEHAVIOUR DIARY

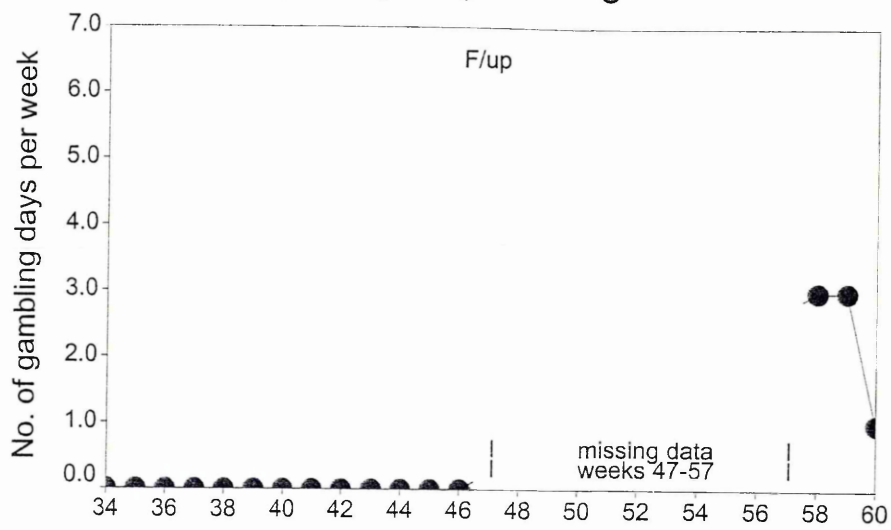
Completed at session
26/3/97.

Week 24/3/97. Commencing	Gambled? Y/N	Total Time Hrs. Mins.	Won/Lost W/L	£
Monday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am	Y Y N	} 10 hrs.	L	£ 195.
Tuesday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am	N N N			
Wednesday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Thursday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Friday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Saturday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Sunday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am		94		

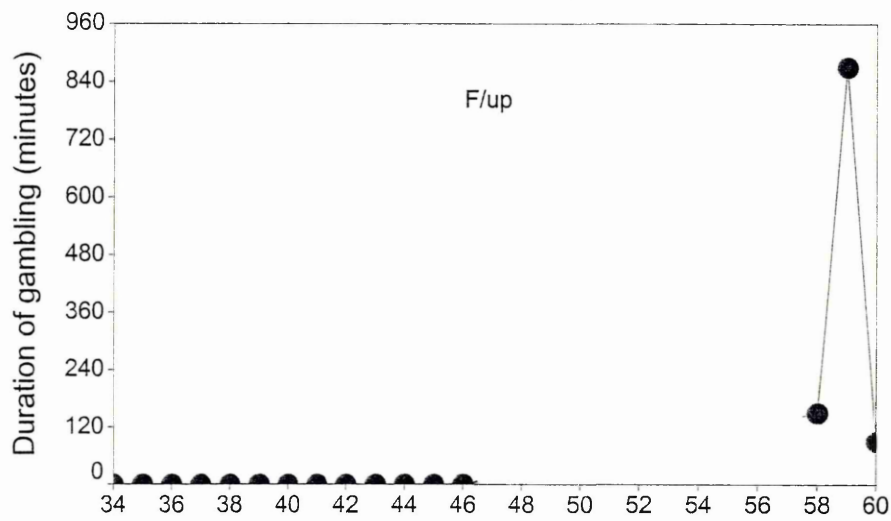
Bookies/
Arcade.

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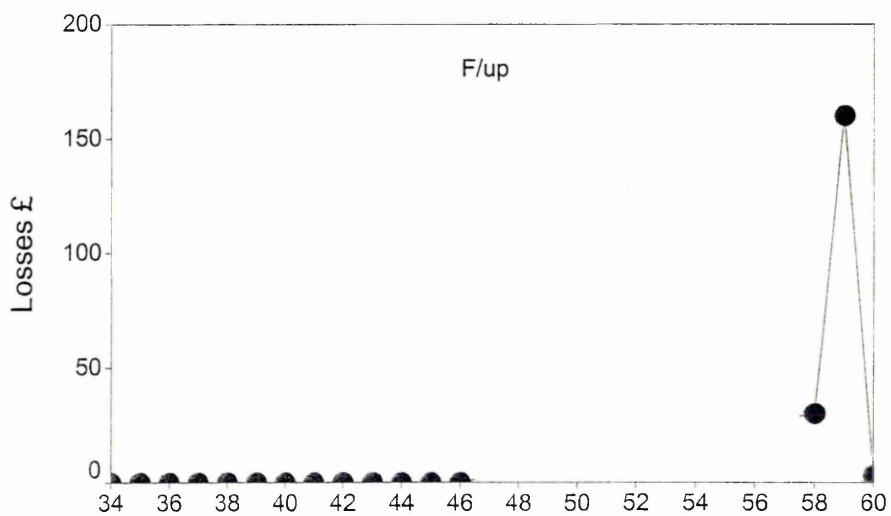
13a. Frequency of gambling



13b. Duration of gambling



13c. Financial losses



Week. Follow-up: 34-60

Table 11.
Analysis of gambling behaviour, Client 3
Mann-Whitney U

Gambling Measure	Mean Ranks		U	Z	2-tailed P
	A (n=12)	B (n=21)			
Frequency	17.92	16.48	115.0	-.5761	.5646
Duration	17.79	16.55	116.5	-.4973	.6190
Financial Losses	17.71	16.60	117.5	-.4449	.6564
	B (n=21)	F/up (n=16)			
Frequency	18.98	19.03	167.5	-.0224	.9821
Duration	19.07	18.91	166.5	-.0673	.9464
Financial Losses	19.17	18.78	164.5	-.9156	.8753

Table 12.
Other gambling outcome measures for Client 3

Stage	Week	SOGS score (0-20)	Problem 1 Gambling (0-8)	Target 1 Slot machines	Target 2 Bookmakers	Target 3 Controlled gambling
Research Entry	0	14	--	--		
Treatment session 1	12	12	Wk13 6.0	Wk14 7.0	5.0	8.0
Treatment session 6	18	--	4.0	7.0	6.5	8.0
Treatment session 12	26	--	3.0	1.0	0	2.0
Discharge	33	10	0	0	0	2.0
6 month follow-up	61	16	5.0	5.0	3.0	8.0

Scores on the SOGS (Lesieur and Blume 1987) for Ernest increased from 11 to 13 during the baseline period, and increased further to 15 by treatment session eight. Scores on the gambling related problem and target statements (Marks 1986) are shown in table 13. At treatment session eight they were little changed from when first completed, having increased immediately prior to suspension of treatment. Scores on the problem and target relating to amphetamine use indicate that self-efficacy regarding ceasing amphetamine use had improved markedly by treatment session eight.

Client 5 Kevin

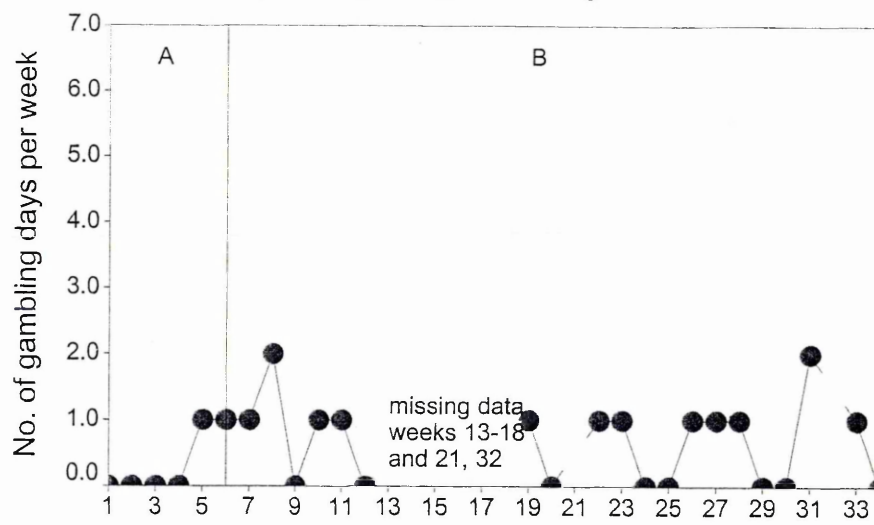
Gambling behaviour was recorded on daily diaries throughout baseline and treatment phases. Figure 15a is a graph of weekly frequency of gambling through baseline (A) and treatment (B) phases. Figure 15b is a graph of similarly blocked duration of gambling (time spent in the gambling environment) for the same periods. Figure 15c is a graph of financial losses for the same periods.

What is evident from figure 15 is the marked increase in frequency of gambling between baseline and treatment phases, with only three incidents of gambling during baseline. Without therapeutic input Kevin reduced his reported pre-baseline gambling losses of £10 a week to a net total of less than £5 over six weeks. The three hour session of gambling in week five was unrepresentative of the rest of the baseline.

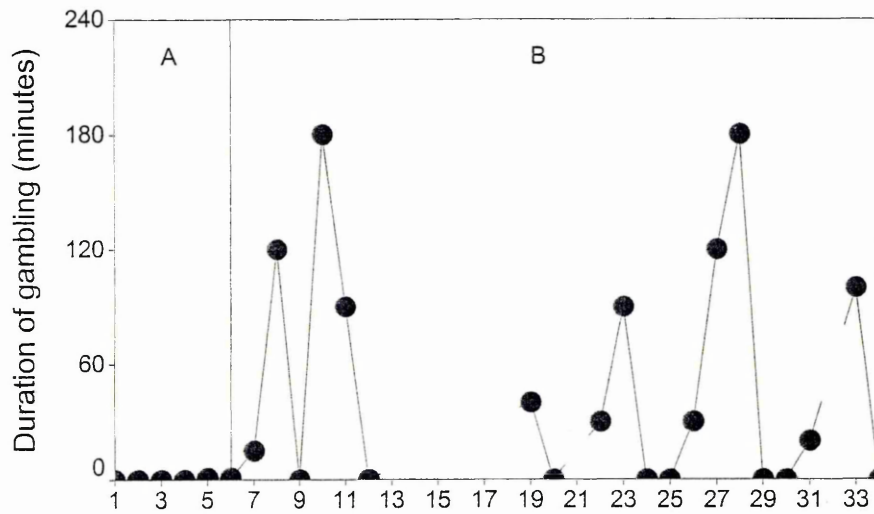
Statistical analysis of Kevin's data was undertaken on the blocked data utilising a Mann-Whitney U Test. Results of the analysis are shown in table 14. These indicate significant increases in gambling frequency ($p < .01$) and duration ($p < .05$) between baseline and treatment phases. Overall there is no evident benefit from treatment on the gambling behaviour measures, and possibly a worsening of the problem associated with treatment.

Table 15 gives details of the SOGS and problem and target scores. Of note is the reduction on the SOGS (Lesieur and Blume 1987) between research entry and first treatment session. Kevin reduced his frequency of gambling markedly during baseline compared to the three months prior to entry to the research. As the scoring questions on

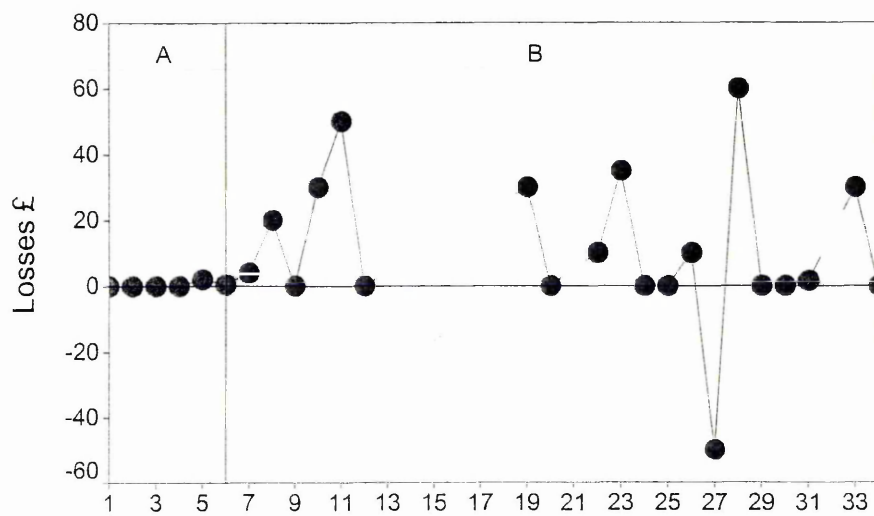
4a. Frequency of gambling



14b. Duration of gambling



14c. Financial losses

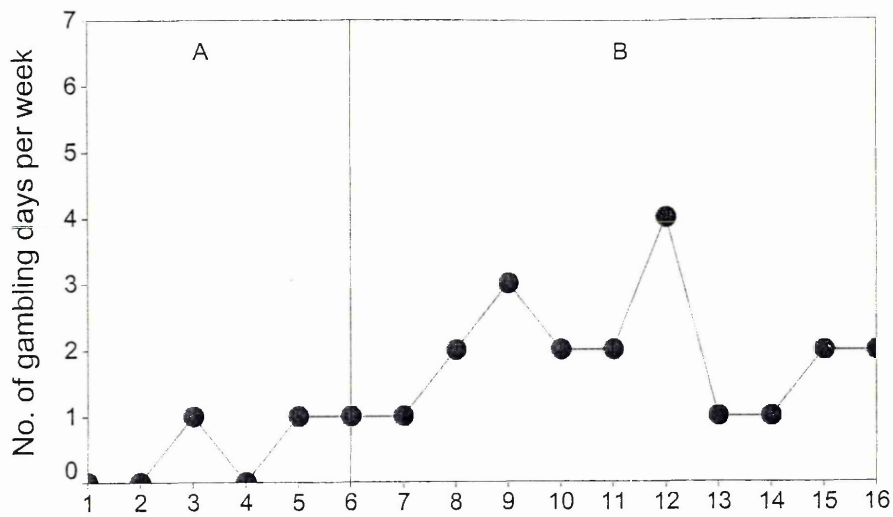


Week. Baseline: 1-6 Treatment: 7-34

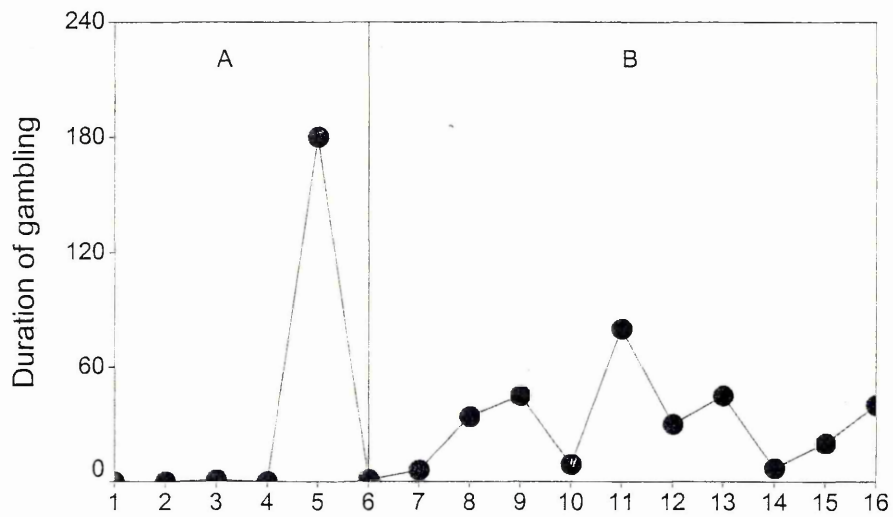
Table 13.
Other gambling outcome measures for Client 4

Stage	Week	SOGS score (0-20)	Prob. 1 Gambling (0-8)	Prob. 2 Use of “speed”	Target 1 Walk past arcades	Target 2 In pub without gambling	Target 3 Socialise without amphet.
Research Entry	0	11	--	--	--	--	--
Treatment session 1	6	13	Week7 5.0	8.0	Week8 3.0	5.5	7.0
Treatment session 6	12	--	8.0	8.0	7.0	7.5	6.0
Treatment session 8	28	15	5.0	1.0	4.5	5.0	1.0

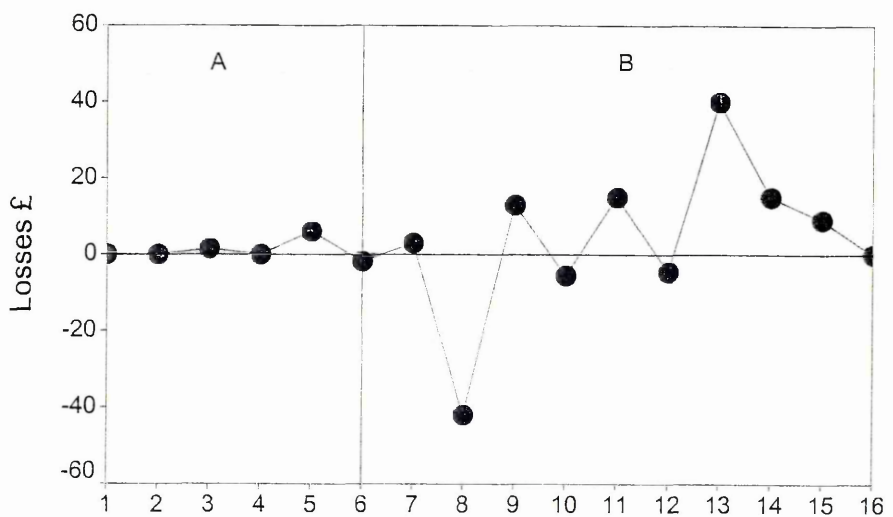
15a. Frequency of gambling



15b. Duration of gambling



15c. Financial losses



Week. Baseline: 1-6 Treatment: 7-16

Table 14.
Analysis of gambling behaviour, Client 5
Mann-Whitney U

Gambling Measure	Mean Ranks		U	Z	2-tailed P
	A (n=6)	B (n=10)			
Frequency	4.25	11.05	4.5	-2.8943	.0038 **
Duration	5.17	10.50	10.0	-2.1789	.0293 *
Financial Losses	7.25	9.25	22.5	-.8201	.4121

Table 15.
Other gambling outcome measures for Client 5

Stage	Week	SOGS score (0-20)	Problem 1 Gambling (0-8)	Target 1 Bookmakers	Target 2 Slot machines	Target 3 Increased activity
Research Entry	0	11	--	--	--	--
Treatment session 1	6	4	Week8 5.0	Week8 3.0	6.0	8.0
Treatment session 7	14	--	5.0	4.0	5.0	3.0

the adapted SOGS relate to the three months before completion, this may have resulted in the lower score. In addition, Kevin's success in reducing the frequency of gambling without active therapeutic intervention may have increased his confidence in his ability to continue to do so. The self-rated problem and targets (Marks 1986) indicate no change in self-efficacy regarding gambling over the course of the first seven treatment sessions.

Client 6 John

Gambling behaviour was recorded on daily diaries throughout baseline and treatment phases. Figure 16a is a graph of weekly frequency of gambling through baseline (A) and treatment (B) phases. Figure 16b is a graph of similarly blocked duration of gambling (time spent in the gambling environment) for the same periods. Figure 16c is a graph of financial losses for the same periods. These show a reduction in mean gambling frequency and duration between baseline and treatment. The financial losses graph shows a highly variable win-loss pattern throughout the baseline and treatment periods. The trend to reduction in gambling frequency, duration and financial losses during baseline makes interpretation of subsequent performance more difficult.

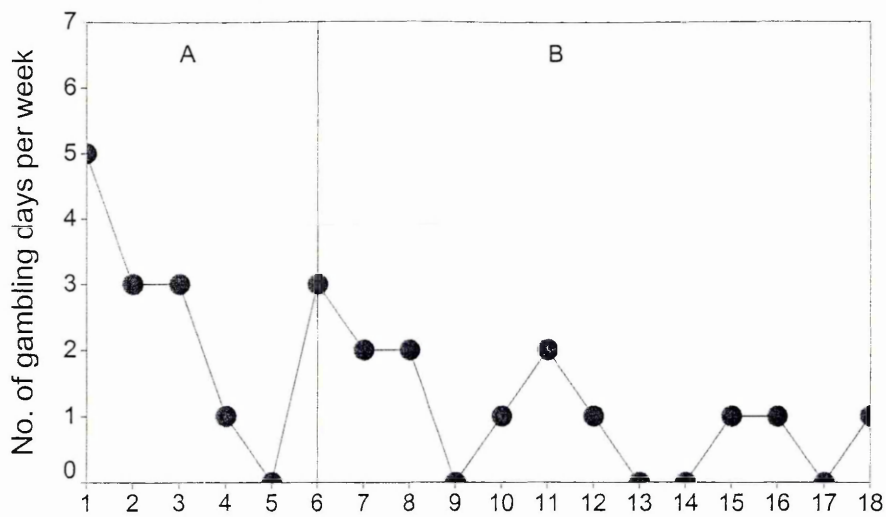
Statistical analysis of John's data was undertaken on the blocked data utilising a Mann-Whitney U test. Results of the analysis are shown in table 16. There are significant reductions in frequency ($p < .05$) and duration ($p < .05$) of gambling, but not financial losses. Again, the reducing trend during baseline should be noted.

John scored 17 on the SOGS (Lesieur and Blume 1987) at entry to baseline, and 18 at the first treatment session. No further SOGS measures were taken. Scores on the gambling related problem and target statements (Marks 1986) are shown in table 17 and indicate that at the last of the four treatment sessions John continued to have a low perception of self-efficacy regarding gambling.

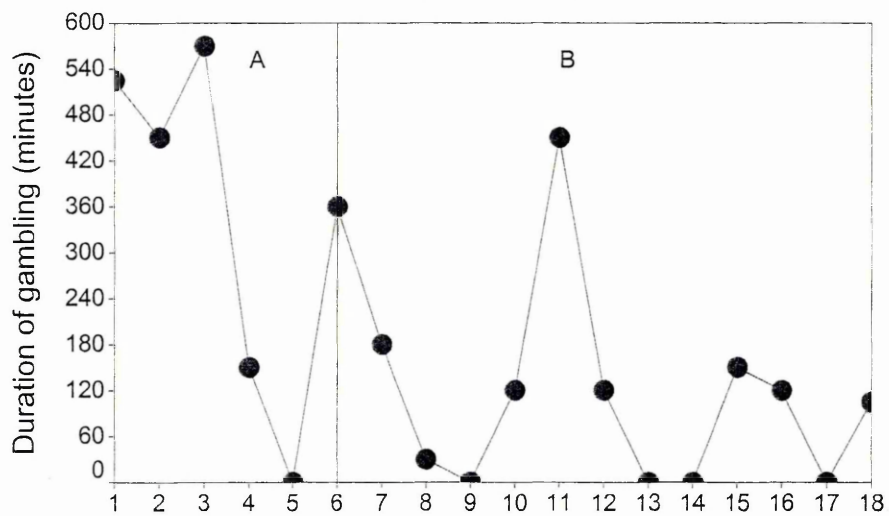
Client 7 Charles

During baseline, and until immediately before he dropped out of treatment, Charles reported no gambling. He completed a Time-Line (Sobell et al 1980) for the six months

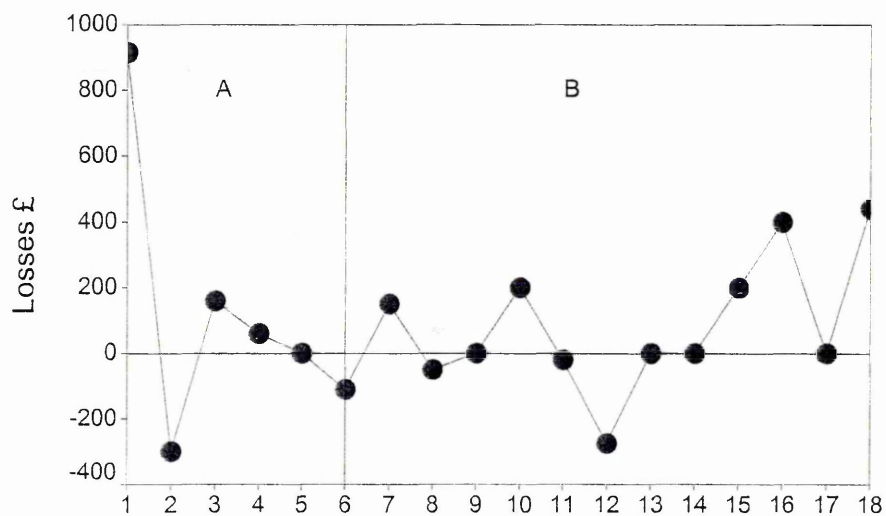
16a. Frequency of gambling



16b. Duration of gambling



16c. Financial losses



Week. Baseline: 1-6 Treatment: 7-18

Table 16.

Analysis of gambling behaviour, Client 6
Mann-Whitney U

Gambling Measure	Mean Ranks		U	Z	2-tailed P
	A (n=6)	B (n=12)			
Frequency	12.92	7.79	15.5	-1.9856	.0471 *
Duration	13.17	7.67	14.0	-2.0887	.0367 *
Financial Losses	9.00	9.75	33.0	-.2841	.7764

Table 17.

Other gambling outcome measures for Client 6

Stage	Week	SOGS score (0-20)	Problem 1 Gambling (0-8)	Target 1 Controlled gambling	Target 2 Not gambling	Target 3 Not gambling when in debt
Research Entry	0	17	--	--	--	--
Treatment session 1	6	18	Week12 6.5	--	--	--
Treatment session 4	18	--	6.0	7.0	4.0	7.0

prior to research entry, which indicated weekly gambling of approx. 5 days weekly, with weekly losses of up to £1,500, and wins of up to £2,000. Prior to his fourth treatment session he contacted the researcher to cancel his appointment, stating that he had recommenced gambling, and felt it was “unfair” to attend further treatment sessions.

Charles scored 19 on the SOGS (Lesieur and Blume 1987) at entry to the study. The SOGS was not completed at first treatment session. Scores on the gambling related problem and target statements (Marks 1986) are shown in table 18 and indicate a low perception of self-efficacy regarding gambling.

Client 8 Anthony

Having attended only one treatment session, there are no treatment data regarding Anthony. Baseline data are shown in figure 17. Figure 17a is a graph of weekly frequency of gambling through the baseline phase. Figure 17b is a graph of similarly blocked duration of gambling (time spent in the gambling environment) for the same period. Figure 17c is a graph of financial losses for the same period. As can be noted, Anthony gambled on 34 out of the 42 days of the baseline period, with large amounts of time daily spent in arcades and bookmakers. Anthony score 12 on the SOGS (Lesieur and Blume 1987) at entry to the study.

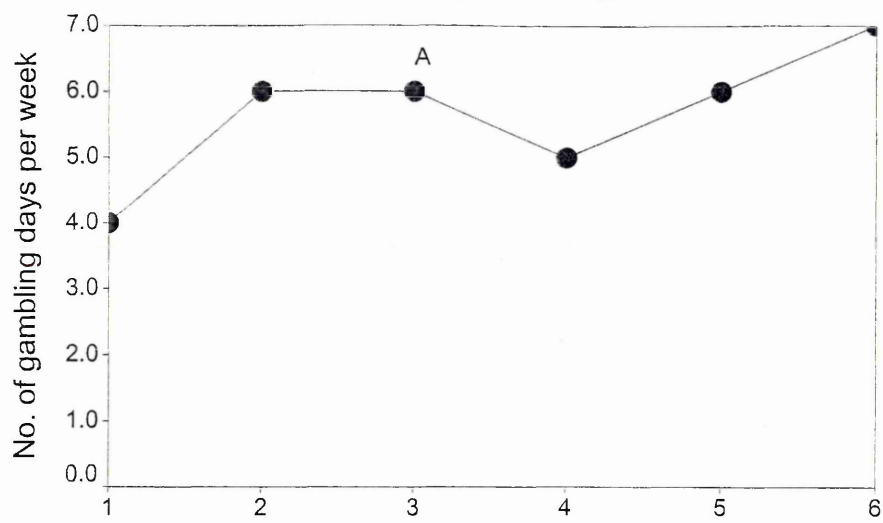
Client 9 Fred

Having attended only one treatment session there are no treatment data regarding Fred. Baseline data are shown in figure 18. Figure 18a is a graph of weekly frequency of gambling through the baseline phase. Figure 18b is a graph of similarly blocked duration of gambling (time spent in the gambling environment) for the same period. Figure 18c is a graph of financial losses for the same period. The baseline a stable level of gambling frequency with an apparent increasing trend in duration of gambling towards the end of the baseline period. The baseline for financial losses is more variable, reflecting the effects of occasional wins. Fred scored 14 on the SOGS (Lesieur and Blume 1987) at entry to baseline and 15 at first treatment session.

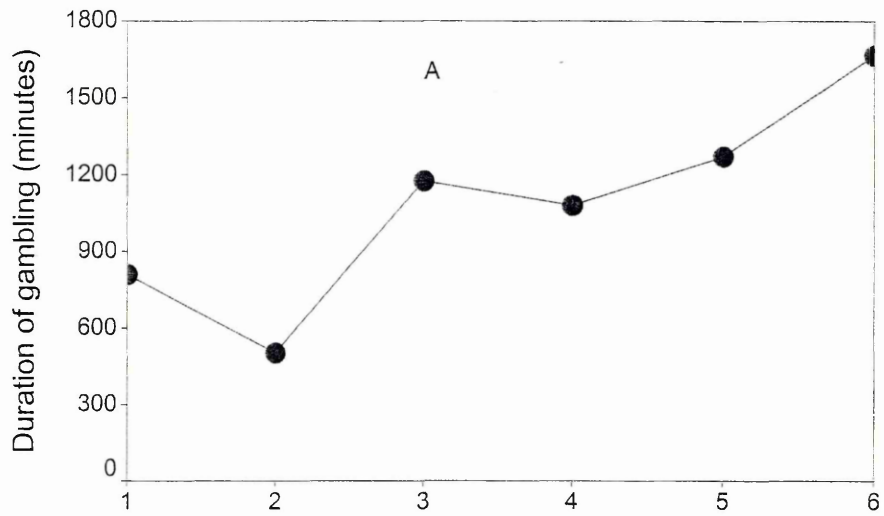
Table 18.
Other gambling outcome measures for Client 7

Stage	Week	SOGS score (0-20)	Problem 1 Gambling	Target 1 Not gambling	Target 2 Leisure activities
Research Entry	0	19	--	--	--
Treatment session 1	6	--	Week8 5.5	Week8 8.0	5.0

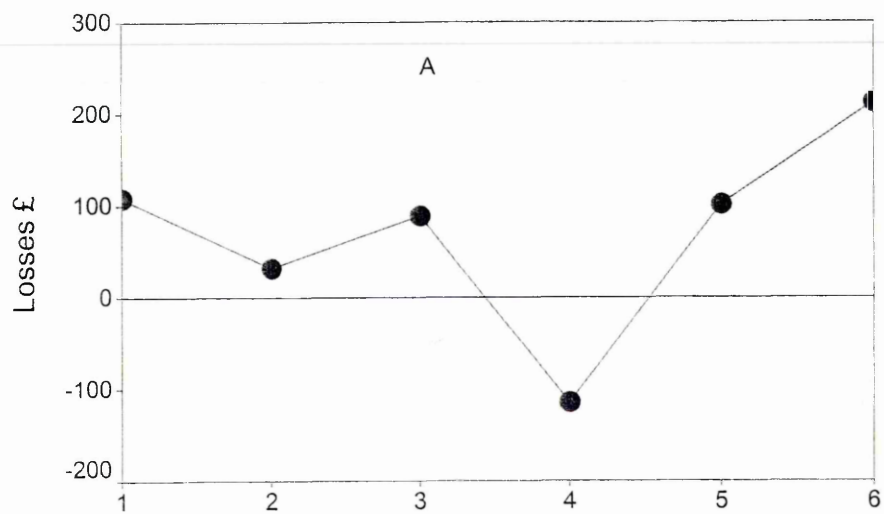
17a. Frequency of gambling



17b. Duration of gambling

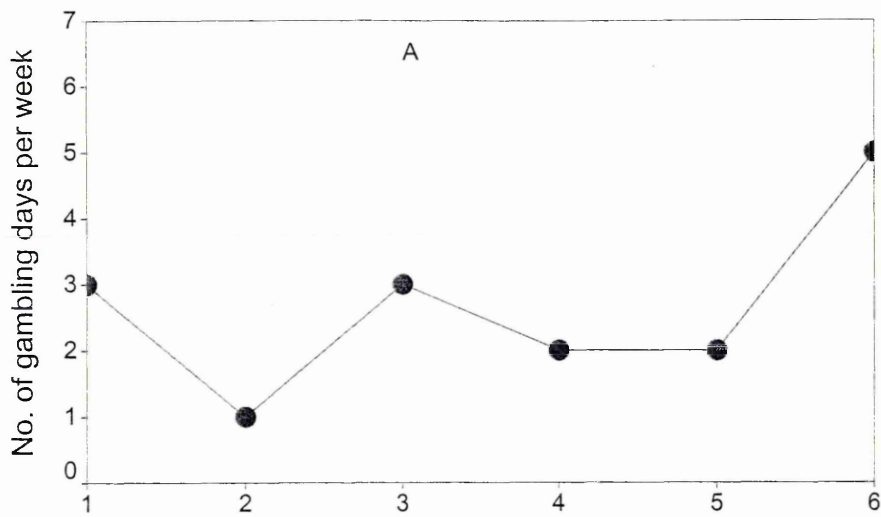


17c. Financial losses

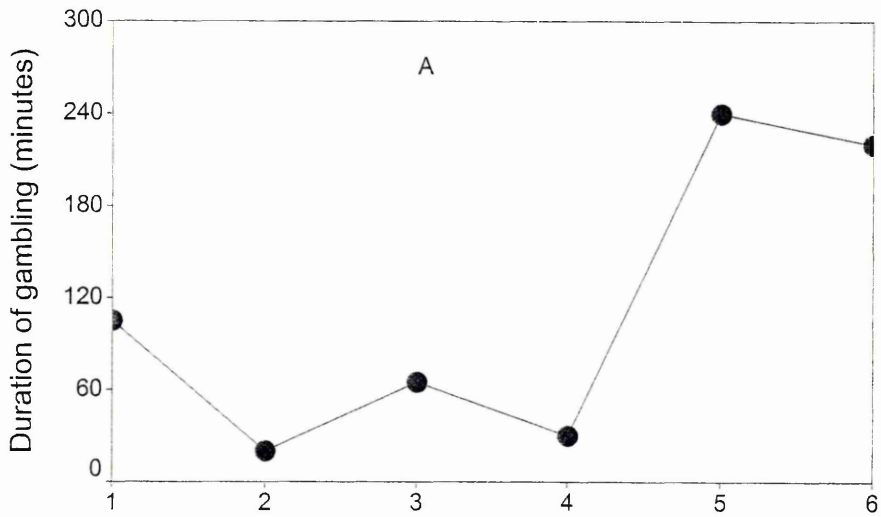


Week. Baseline: 1-6

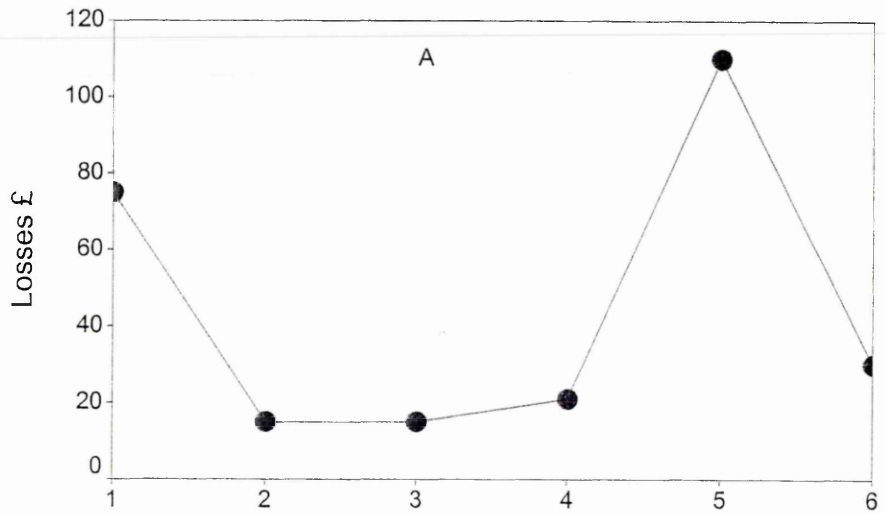
18a. Frequency of gambling during baseline



18b. Duration of gambling during baseline



18c. Financial losses during baseline



Week. Baseline: 1-6

In summary, of the nine clients in the research sample, six dropped out prior to completion of treatment. Three completed treatment with clinically significant gains, as evidenced by changes with their gambling behaviour, and, for one client, a reduced score on the SOGS at discharge. The two clients who changed their gambling behaviour to a clinically significant extent, but whose scores on the SOGS at discharge remained indicative of pathological gambling, relapsed during follow-up. Table 19 summarises this information.

Table 19.

Overall outcome summary for research sample

Client	Gambling Activities	Overall Outcome	Number of Treatment Sessions	Order of Entry to Research	SOGS scores. Research Entry / T1	SOGS scores. Discharge/3/6/12 mth. Follow-up
1	Horses, Slot Machines	Clinically Significant Change	14	6	12 / 15	2
2	Horses, Dogs	Clinically Significant Change, Relapse in Follow-Up	14	3	10 / Not completed	10 / 13 / 12 / 14
3	Dogs, Slot Machines	Clinically Significant Change, Relapse in Follow-Up	16	7	14 / 12	10 / - / 16
4	Slot Machines	Dropped Out	11	4	11 / 13	
5	Horses, Dogs, Slot Machines	Dropped Out	9	9	11 / 4	
6	Horses, Dogs	Dropped Out	4	8	17 / 18	
7	Horses, Dogs	Dropped Out	3	2	19 / Not completed	
8	Horses, Dogs, Slot Machines	Dropped Out	1	1	12 / Not completed	
9	Horses	Dropped Out	1	5	14 / 15	

Impact of different elements of treatment.

To assess the effects of the sequential addition of different aspects of treatment on gambling behaviour, the gambling behaviour graphs have been overlaid with details of treatment session dates. For completed treatments five distinct intervention phases can be noted. These are:

- a) Motivational interviewing, assessment and introduction of self-monitoring
- b) Provision of the formulation and introduction of stimulus control strategies
- c) Cognitive restructuring
- d) Planning and undertaking cue exposure
- e) Review of treatment and relapse prevention planning

Full details of the protocol are given in Appendix D.

In the nature of the single case experimental AB design, only the effect of each aspect of treatment in combination with the preceding interventions can be assessed (Kazdin 1992).

For Gareth, figure 19 provides details of the relationship between different phases of treatment and gambling behaviour. Of note is that the reduction in level of frequency and duration of gambling noted at week 20 follows the introduction of cue exposure. This is in the context of a stable trend prior to its introduction. The reduction in gambling losses is less clear-cut, resulting from the variability in wins and losses associated with higher frequency, more intensive gambling.

For David figure 20 provides details of the different phases of treatment. There is a reducing trend in frequency and duration of gambling through treatment, but no apparent link to the introduction of any particular element of treatment.

For Harold, figure 21 provides details of the different phase of treatment. Despite the instability in the baseline and treatment data there is an apparent reduction in gambling frequency, duration and losses following the introduction of cue exposure at week 23. Following this point there was a sustained period without gambling, which continued

through the first five months of follow-up.

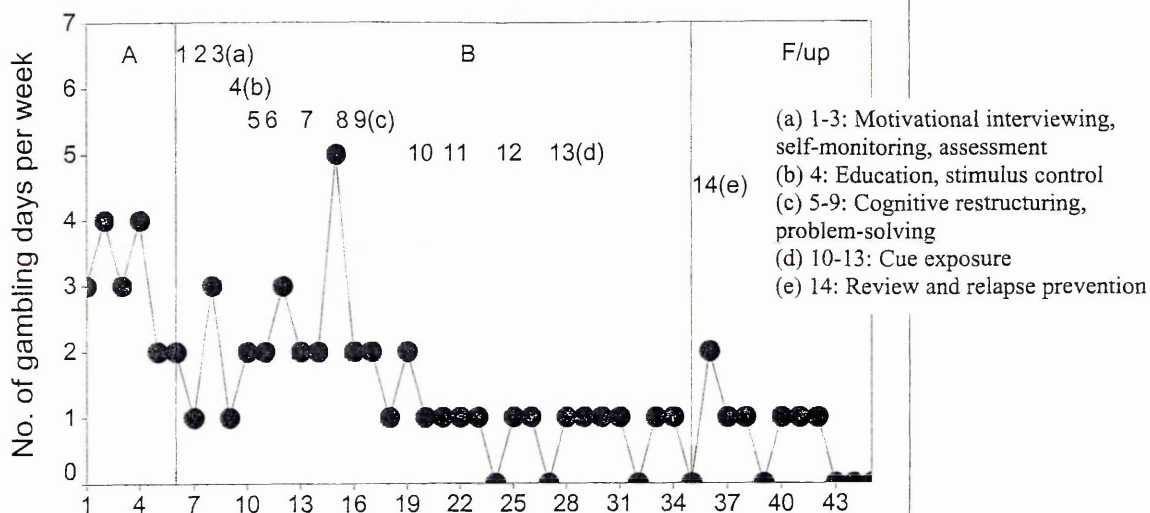
For Ernest, figure 22 provides details of the different phases of treatment. There is no apparent impact of any particular element of treatment.

For Kevin, figure 23 provides details of the different phases of treatment. There is no apparent impact of any particular element of treatment.

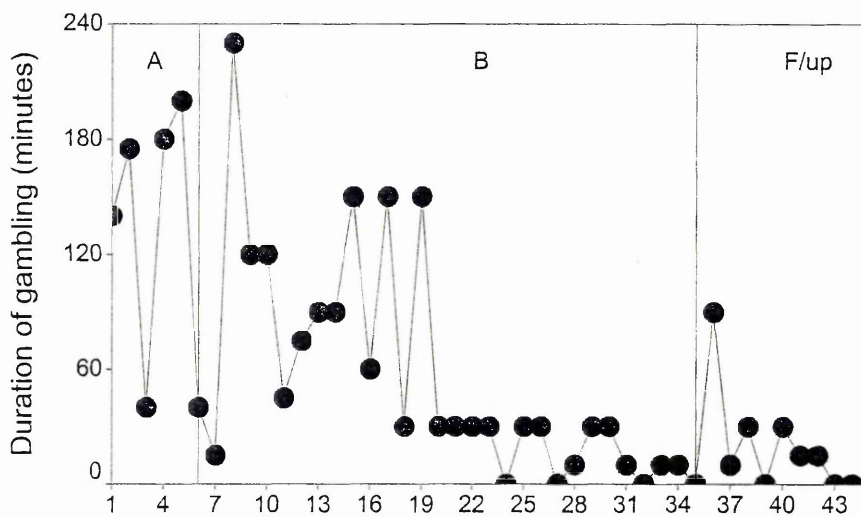
For the remaining clients, only stages a) and b) outlined above were undertaken, so no information regarding the sequential addition of further elements of treatment is available.

In summary, for two of the five clients where the effects of the different elements of treatment on gambling behaviour can be examined, there appeared to be a marked effect on gambling behaviour of the introduction of cue exposure. For the other three, there is no apparent differential impact of any particular element of treatment.

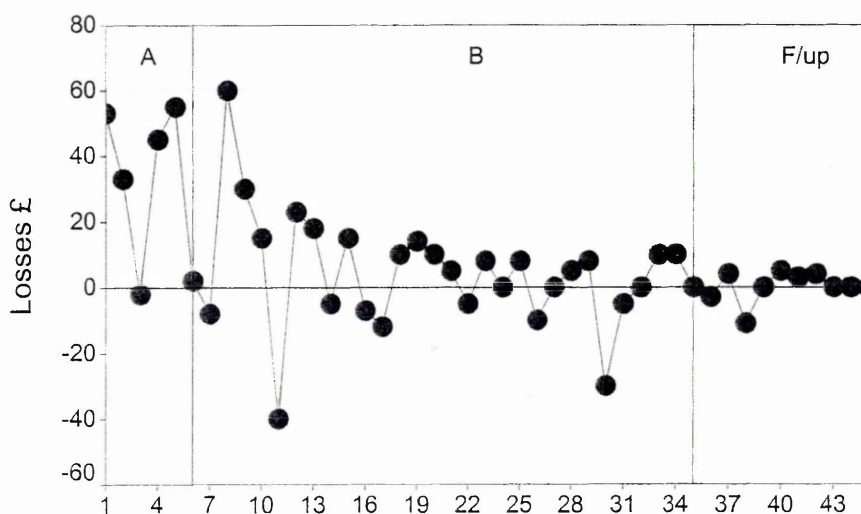
19a. Client 1. Frequency of gambling



19b. Duration of gambling

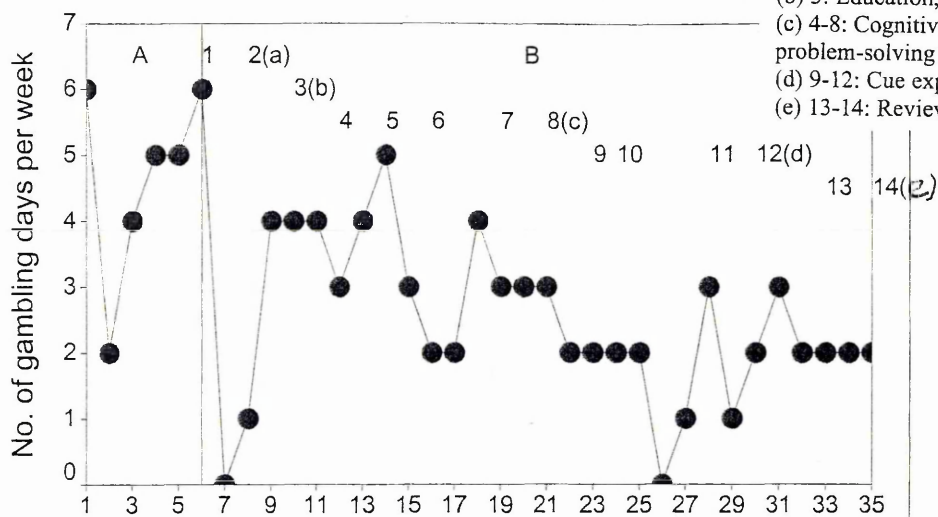


19c. Financial losses

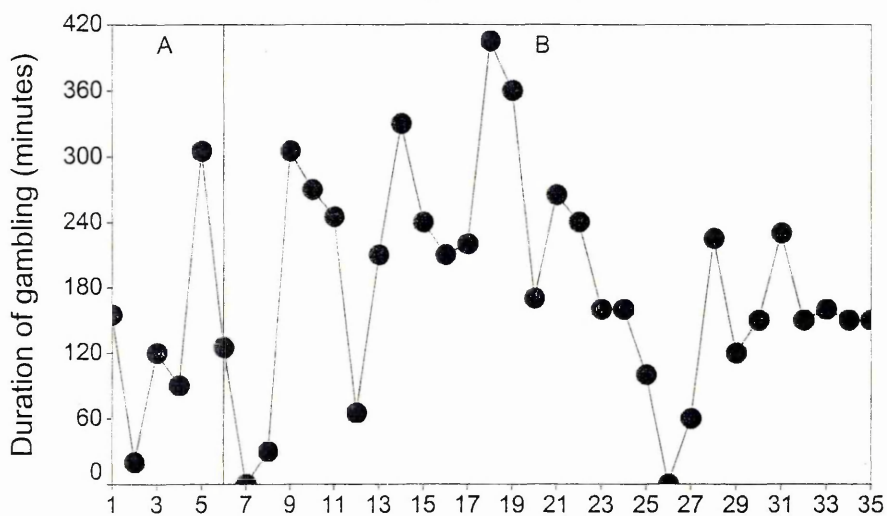


Week. Baseline: 1-6 Treatment: 7-35 Follow-up: 36-45

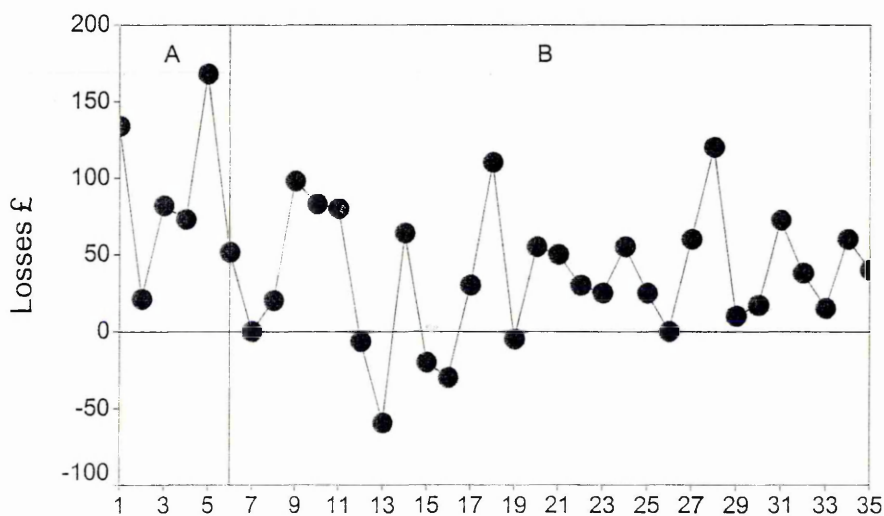
20a. Client 2. Frequency of gambling



20b. Duration of gambling

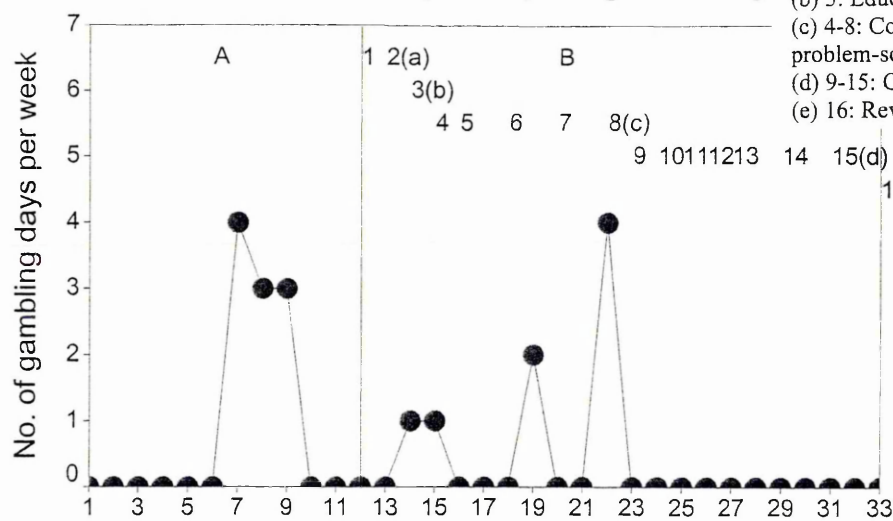


20c. Financial losses

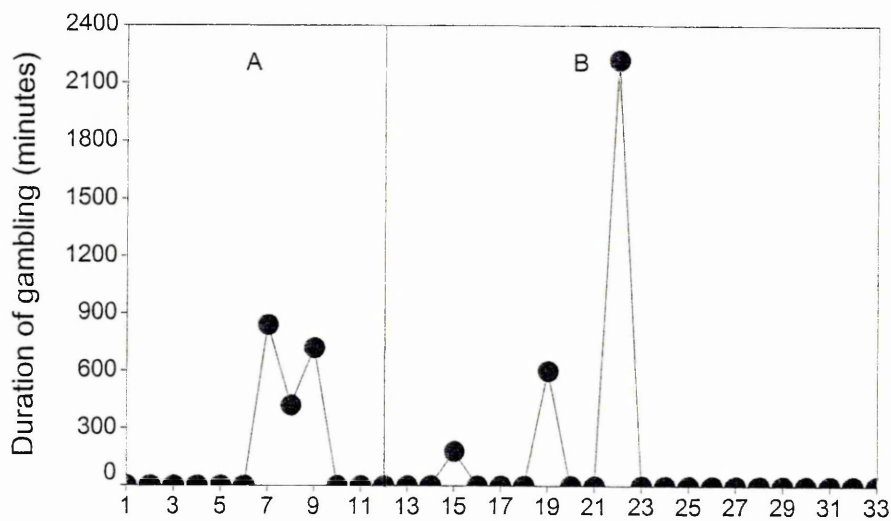


Week. Baseline: 1-6 Treatment: 7-35

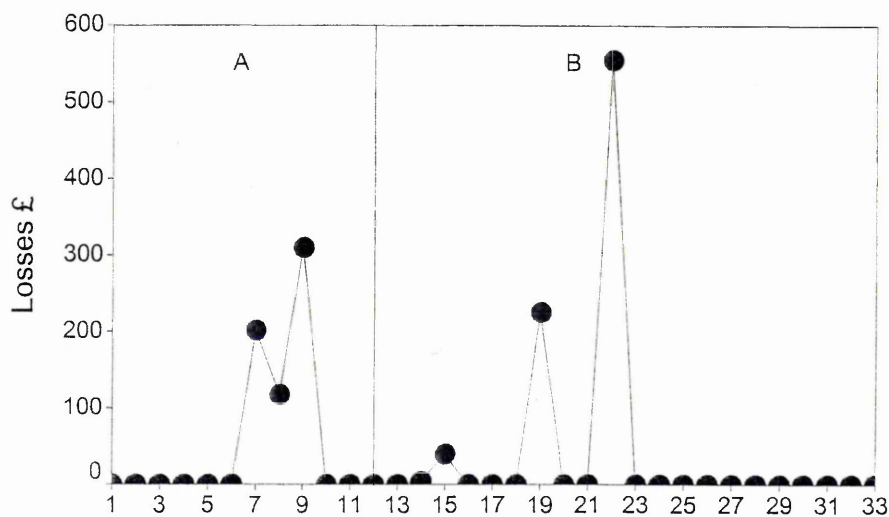
21a. Client 3. Frequency of gambling



21b. Duration of gambling

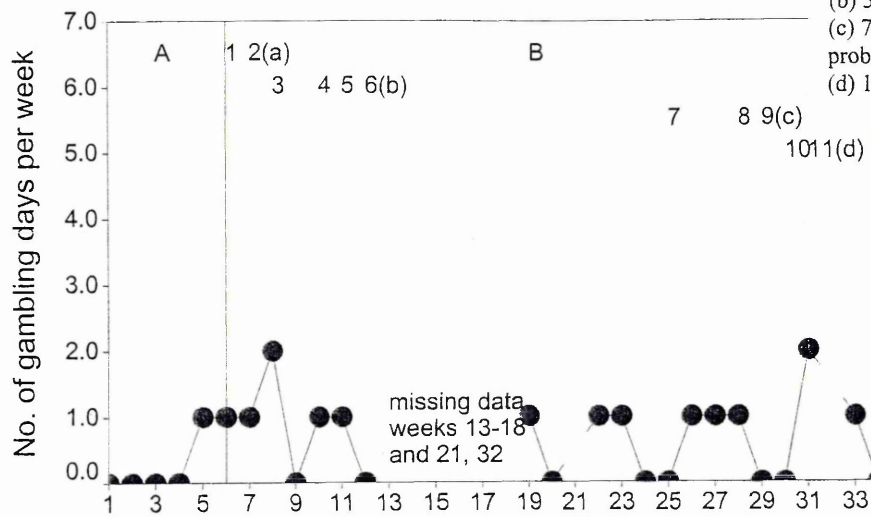


21c. Financial losses

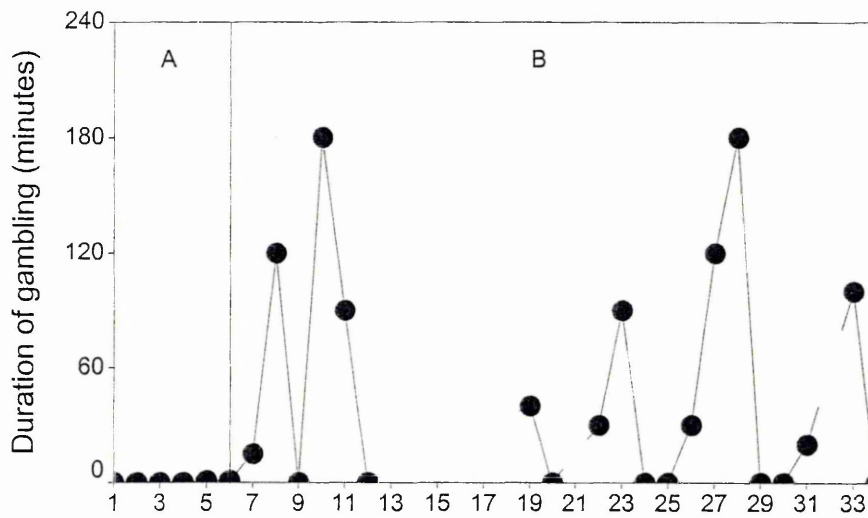


Week. Baseline: 1-12 Treatment: 13-33

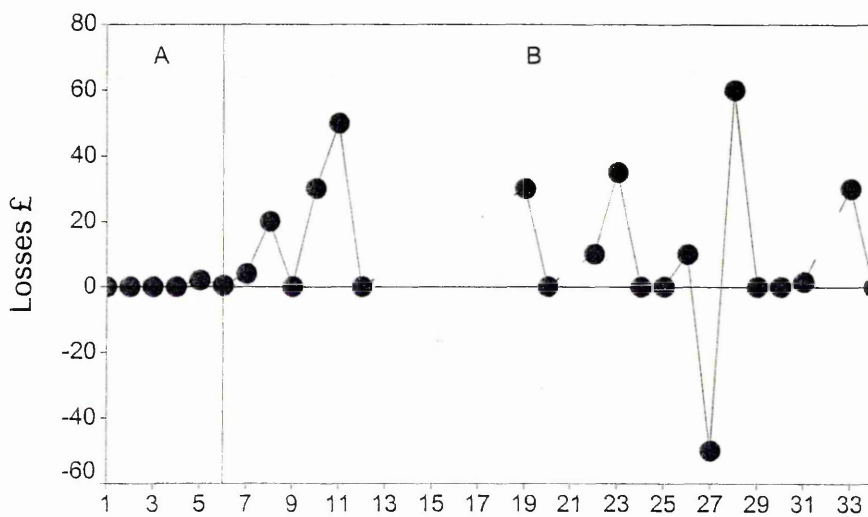
22a. Client 4. Frequency of gambling



22b. Duration of gambling

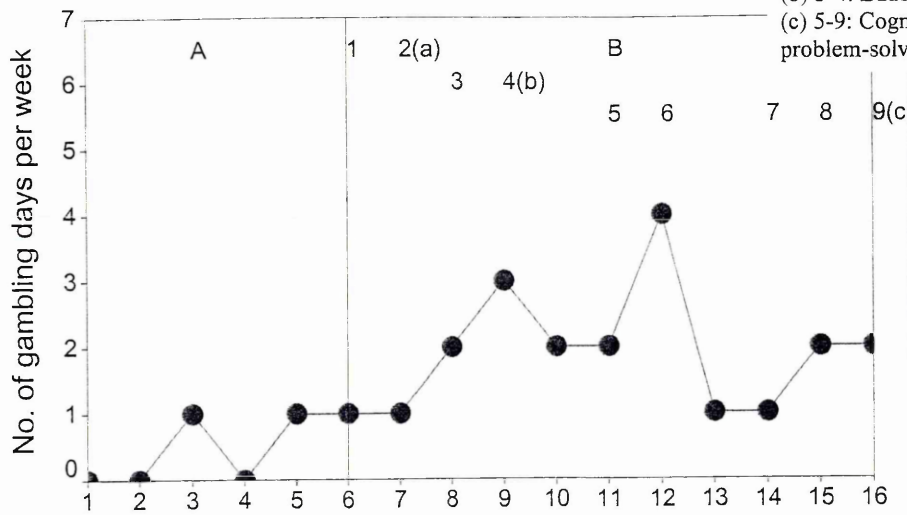


22c. Financial losses

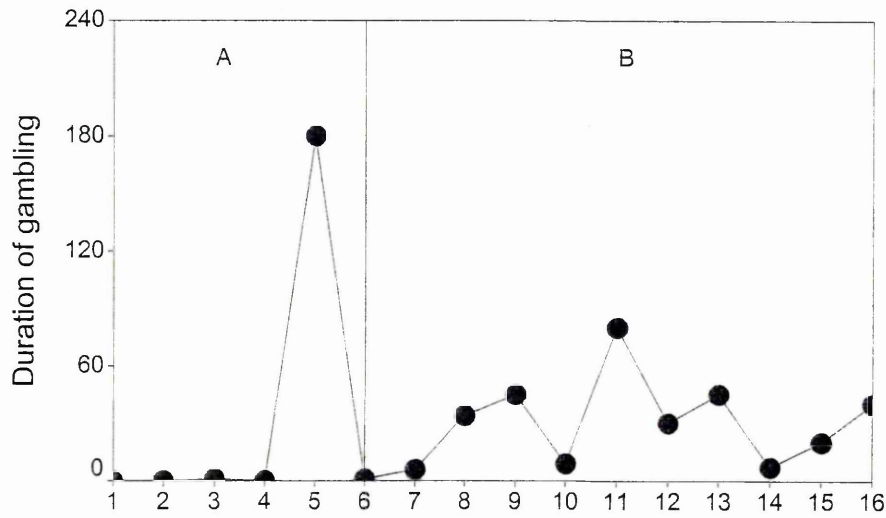


Week. Baseline: 1-6 Treatment: 7-34

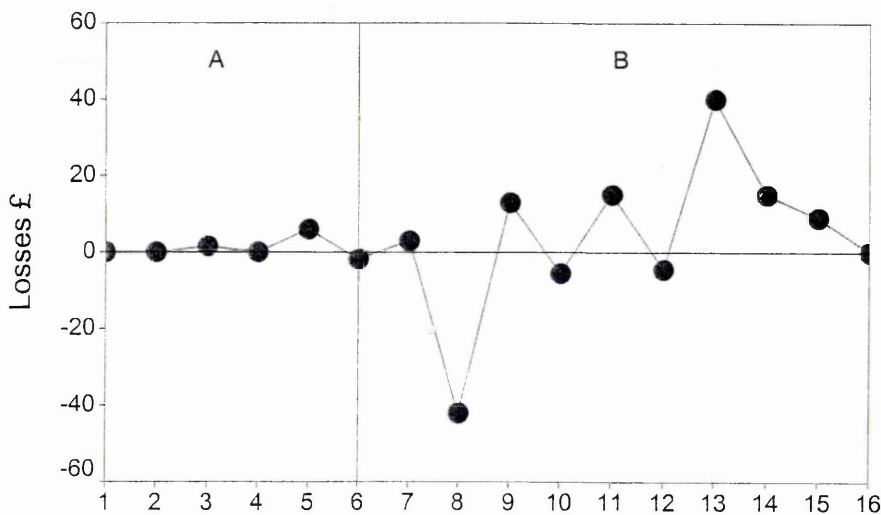
23a. Client 5. Frequency of gambling



23b. Duration of gambling



23c. Financial losses



Week. Baseline: 1-6 Treatment: 7-16

Gambling Urges

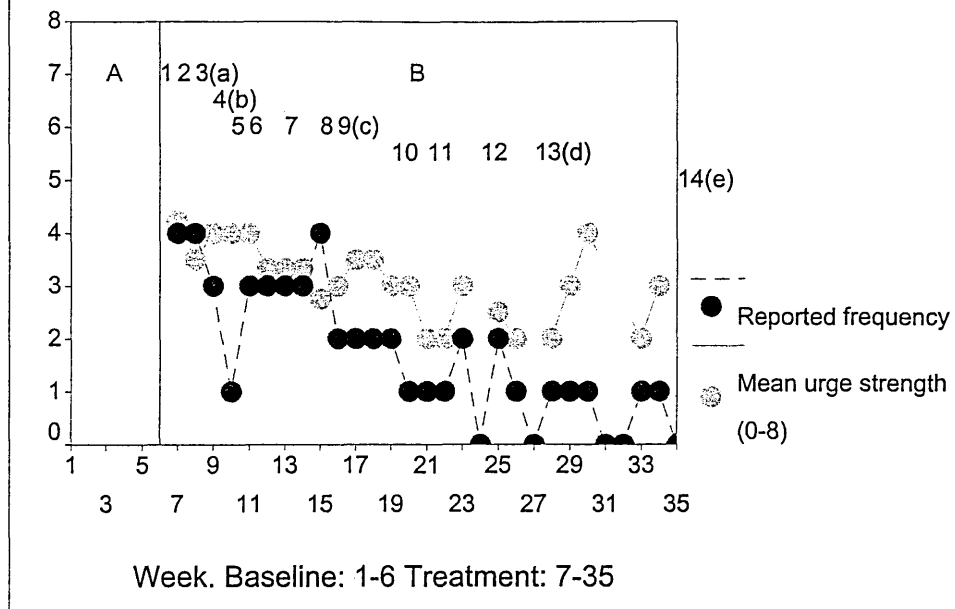
Throughout treatment all clients were requested to complete gambling urge diaries, for the purpose of monitoring process of change (see Appendix C). These diaries included a rating of the strength of the urge to gamble. In addition, qualitative information regarding the context in which urges to gamble were reported was recorded on the diaries. Where the gambling urge diaries were completed consistently, it is possible to relate the sequential addition of treatment elements to this process measure.

For Gareth, figure 24 shows both the reported frequency of urges to gamble, and the weekly mean reported urge strength. Where no gambling urge diaries were completed, the week is shown as missing data. The treatment phases discussed above are overlaid on this figure. What is evident is a reducing trend throughout treatment in both the frequency with which gambling urges are reported and the strength of those urges. There is no apparent impact of the sequential addition of any particular element of treatment. Figure 25 gives examples of the gambling urge diaries completed by Gareth, at different stages in treatment. What is evident is that the urge strength alone gives only a partial impression of the changes which are occurring. Specifically, as shown in the examples given, the triggers dealt with early and later in treatment are qualitatively different. Early in treatment interpersonal disputes were responded to with high levels of urge. Later in treatment contact with gambling related environments, a trip to the races, and entering a betting shop as part of the cue exposure resulted in lower levels of subjective urge to gamble, and were dealt with successfully without gambling. As a result reliance on stimulus control strategies such as avoidance of gambling related triggers could be reduced, increasing Gareth's perceived self-efficacy regarding gambling.

For David, figure 26 shows both the reported frequency of urges to gamble, and the weekly mean reported urge strength. Where no gambling urge diaries were completed, the week is shown as missing data. The treatment phases are overlaid on this figure. What is evident is a relatively stable frequency of gambling urges, with a small but consistent reduction in urge strength through treatment. There is no apparent impact of the sequential addition of any particular element of treatment. Figure 27 gives examples

Figure 24: Reported gambling urges. Client 1

0-8 Scale. 8 = Maximum urge strength



- (a) 1-3: Motivational interviewing, self-monitoring, assessment
- (b) 4: Education, stimulus control
- (c) 5-9: Cognitive restructuring, problem-solving
- (d) 10-13: Cue exposure
- (e) 14: Review and relapse prevention

Figure 25.
Examples of gambling urge diary, Client 1

SITUATION	URGE		THOUGHTS	COPING STRATEGIES	OUTCOME
	Strength 0-8 scale	Duration			
Week 7. In Pub. I was told something about work which upset me	5	30 mins.	I would have gone in betting shop if open.	Drink 4/5 pints	Went home. Depressed
Week 8. Had a very bad day at work, finished at dinner, went to pub. Then for a bet.	4	1 1/2 hrs.	Bad day, have a bet, might win. Make a good day.		Lost £30
Week 9. I'll go to pub, meet friends, might have a bet	3	1 1/2 hrs.		No, don't have a bet, I'll lose money feel rubbish	Went to Meadowhall. Got some clothes. Felt good
Week 13. Market Rasen trip called off, went to pub all day.	3	All day	I'm not going to have a bet all day just to prove I can stop.	Keep money in back pocket out of way.	Didn't have bet or go on bandit all day.
Week 23. Go in betting shop and not have a bet	4	1 1/2 hrs.	I'm not going to have a bet, to prove to myself I don't have to. Very hard just standing there. Didn't want to go in, but I did.		Didn't have a bet, one of the best days in my life.

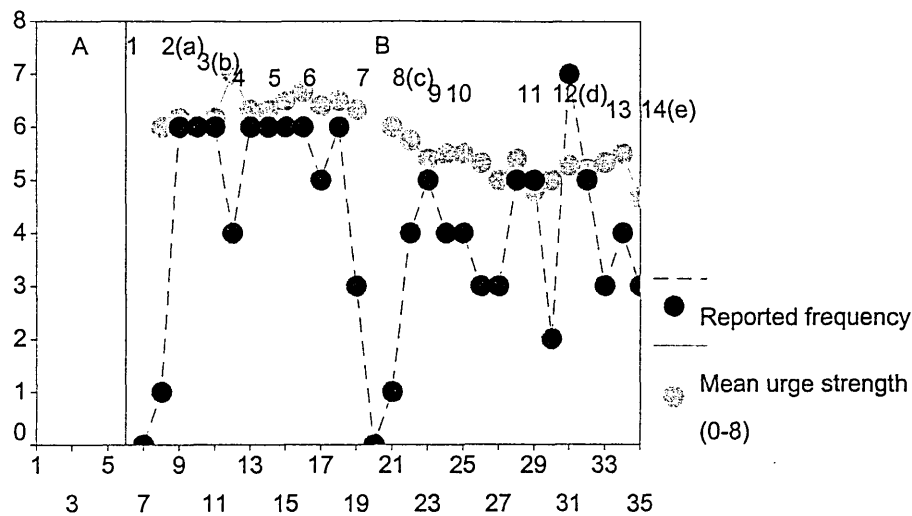
of the gambling urge diaries completed by David, at different stages in treatment. The urge diaries indicate that David began to apply coping strategies more effectively as treatment progressed. The example from week 18 is typical of David's use of information from diaries regarding his gambling, and then alternative activities to divert himself from gambling. The example from week 27 relates to the cue exposure aspect of treatment, with David successfully undertaking self-managed exposure to the vicinity of a bookmakers on a number of occasions. Throughout the diaries, there is a strong link between alcohol use, and a failure to respond to gambling urges with coping strategies, leading to gambling with chasing behaviour. Examples of this are seen in the entries for weeks 13 and 33.

For Harold, figure 28 shows both the reported frequency of urges to gamble, and the weekly mean reported urge strength. Where no gambling urge diaries were completed, the week is shown as missing data. The treatment phases are overlaid on this figure. The reported frequency of gambling urges is stable throughout treatment. However, following a period of stable high levels of urge strength, there is a marked reduction in the level of the mean urge strength following week 24. This coincides with the introduction of cue exposure. Figure 29 gives examples of the gambling urge diaries completed by Harold, at different stages in treatment. As for Gareth, in addition to the reduction in urge strength, there is a clear qualitative difference between reports early and late in treatment. The examples of urge diaries from earlier in treatment indicate the urge being triggered by financial difficulties and the availability of money. They show a weak perception of control, with maximum subjective urge strength reported, and limited coping strategies applied. Unsurprisingly, they often resulted in gambling. Later entries relate to planned cue exposure to gambling environments, with higher perceived self-efficacy. The occasion when a stronger urge to gamble was reported, in week 31, was linked to the previously noted trigger of financial constraints. However, on this occasion it was dealt with effectively.

Ernest completed gambling urge diaries over only the first two weeks of treatment. Reported triggers to gambling were the use of amphetamines, being by himself in a

Figure 26. Reported gambling urges. Client 2

0-8 Scale. 8 = Maximum urge strength



Week. Baseline: 1-6 Treatment: 7-35

- (a) 1-2: Motivational interviewing, self-monitoring, assessment
- (b) 3: Education, stimulus control
- (c) 4-8: Cognitive restructuring, problem-solving
- (d) 9-12: Cue exposure
- (e) 13-14: Review and relapse prevention

Figure 27.
Examples of gambling urge diary, Client 2

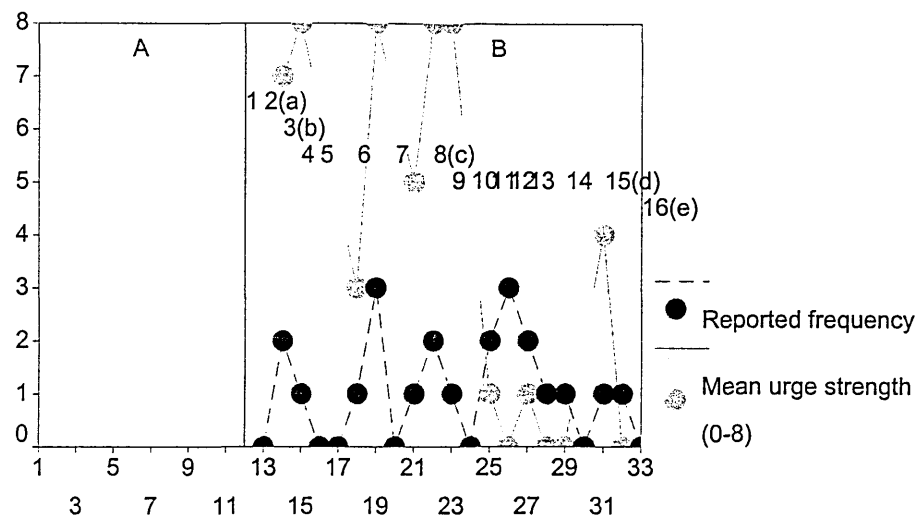
SITUATION	URGE		THOUGHTS	COPING STRATEGIES	OUTCOME
	Strength 0-8 scale	Duration			
Week 8 Went in local t.v. racing	6	30 mins	Fancy a horse to win	Knew it could lose, but be sick if it won	Bet on 12.50 It lost. Should have stayed in pub. Had a drink
Week 9 Reading paper. Really fancy a horse	6	1hr. 15 mins	Horse got a great chance	Took dog for walk	Horse won. Just my luck
Week 11 Borrowed £5 to win to pay debts off	7	45 mins	Win to pay debts off	Thought could keep £5	Had bet lost £5
Week 13 Went to local for drink. Took £15 with me	7	2 hrs	Just have 1 bet but started chasing	Didn't really think until later	Lost £45
Week 17 Went in Town	6	30 mins	Just call in but don't have a bet	Most often I would have a bet	No bet
Week 18 Reading paper	6	1 hr	Try and win something	Look at my losses Took dog out	No bet

Figure 27 continued.
Examples of gambling urge diary, Client 2

SITUATION	URGE		THOUGHTS	COPING STRATEGIES	OUTCOME
	Strength 0-8 scale	Duration			
Week 22	6	30 mins	Nothing to do. Shall I go for a bet. Could just call in	Will only lose. Got to cut down.	No bet
Week 27 Went to Bookies	5	30 mins	Stood outside until it went down	Didn't drink. Waited, went home	No bet
Week 33	6	2 hrs	Went to local	Tried to have one bet	Lost £45
Week 34	6	30 mins.	Girlfriend could not be with me	Just have £10 bet. Try to get money back	Lost £10

Figure 28. Reported gambling urges. Client 3

0-8 Scale. 8 = Maximum urge strength



Week. Baseline: 1-12 Treatment: 13-33

- (a) 1-2: Motivational interviewing, self-monitoring, assessment
- (b) 3: Education, stimulus control
- (c) 4-8: Cognitive restructuring, problem-solving
- (d) 9-15: Cue exposure
- (e) 16: Review and relapse prevention

Figure 29.
Examples of gambling urge diary, Client 3

SITUATION	URGE		THOUGHTS	COPING STRATEGIES	OUTCOME
	Strength 0-8 scale	Duration			
Week 14 At home by self	6	10 mins	Tomorrow I get paid. I owe a lot of money out. How can I make some extra, perhaps by gambling	Thought about the mess I'm in through gambling, and that gambling wouldn't achieve anything	As I didn't have any money I just read a book
Week 15 Landlord came about rent owed. Says I have whilst Saturday to pay or I'm to move out.	8	2 hrs	What am I going to do. How am I going to find the money. Go to the Bookies?	Went to C.A.B. and tax office for advice, see if I'm due any tax back. Smoking	Ended up going to Bookies and losing money I can ill afford
Week 23 I've been on a binge over the weekend and lost a lot. My rents due at the end of the week. Also my ex wants my daughters things that she bought her that are at my flat	8	2 Hrs	I've not set a good example for myself by going off like I did. Now my rents not going to be paid. I might end up facing eviction. Perhaps my daughter is better off not seeing me.	Did not	Spent most of the day in the Bookies and amusement arcade and lost another £190

Figure 29 continued
Examples of gambling urge diary, Client 3

SITUATION	URGE		THOUGHTS	COPING STRATEGIES	OUTCOME
	Strength 0-8 scale	Duration			
Week 26 Went round the Arcade in Meadowhall looking at the machines and watching people playing them	0	15 mins	I'm not too keen on this. Its not that I feel uncomfortable, I don't, I just don't want to be in here.	I just put all thoughts of playing them out of my mind and concentrated on things which I want to do.	I didn't have an urge at all to play even though I had money on me. I have been trying to build up a hatred for arcades which seems to be working.
Week 31 Went into Bookies with some money on me to see how I'd feel watching the racing	4	1 Hr	I'm going to London this evening, and I could do with a bit more money to spend. Dare I risk having a couple of bets?	Thinking about how well I've done over the past month or so. Also thinking about what would happen should I lose and have to travel to London with no or very little money.	I didn't have a bet as I knew if I'd lost I'd have wanted to have another to try and win at least my money back. Although I felt in control there was an urge to gamble. I think though that if it wasn't for this test I wouldn't have gone near a Bookies or had an urge.
Week 32 Went into the Bookies to watch the racing and see how I'd feel whilst having £20 on me.	0	1 Hr	I don't feel any pressure on me today and I feel relaxed	I didn't need to apply any as I didn't in any way feel threatened	I was able to pick out my selections without feeling any pressure or urge to have a bet due to the fact that I wasn't short of money or had any money worries. I would have broken even had I actually

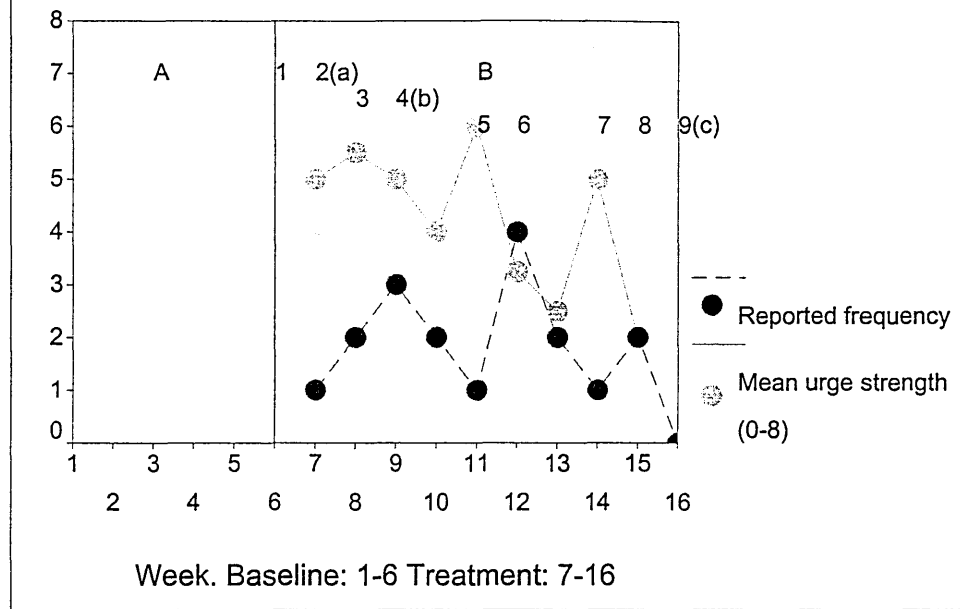
public house, and feeling bored. Thoughts related to feeling happier and winning money. As noted above, Ernest failed to undertake many of the agreed activities during treatment, completion of the gambling urge diaries was one aspect he failed to undertake.

Kevin completed gambling urge diaries throughout his treatment. Figure 30 shows both the reported frequency of urges to gamble, and the weekly mean reported urge strength. Where no gambling urge diaries were completed, the week is shown as missing data. The treatment phases are overlaid on this figure. The reported frequency of occurrence of gambling urges is unstable throughout treatment. The reported mean strength of the gambling urges evidences a reducing trend throughout treatment. There is no apparent effect of the sequential addition of specific aspects of treatment. Figure 31 gives examples of the gambling urge diaries completed by Kevin, at different stages in treatment. As can be noted, triggers to gambling remained similar throughout treatment, relating primarily to having money available, alcohol use, pain, and low mood. Whilst reported urge strength reduced over the course of treatment, gambling losses actually increased. The reports show evidence of an inability to engage with treatment which was also evident in such behaviours as arriving late for sessions, and limited application of techniques being taught. In this, the importance of chronic pain and anger regarding loss of functioning should be noted.

John completed gambling urge diaries throughout his treatment. Figure 32 shows both the reported frequency of urges to gamble, and the weekly mean reported urge strength. Where no gambling urge diaries were completed, the week is shown as missing data. The four treatment sessions he received are overlaid on this figure. What is evident is that, although there was a low reported frequency of gambling urges, when they did occur they were reported as being of maximum urge strength. This did not change through treatment. Figure 33 gives examples of the gambling urge diaries completed by John, at different stages in treatment. In contrast to Gareth and Harold, discussed above, there is a no apparent difference between reports early and later in treatment. The reports appear to indicate a continuing reliance on stimulus control strategies, with limited ability to deal with urge related thoughts regarding winning money and recouping losses. Given the

Figure 30. Reported gambling urges. Client 5

0-8 Scale. 8 = Maximum urge strength



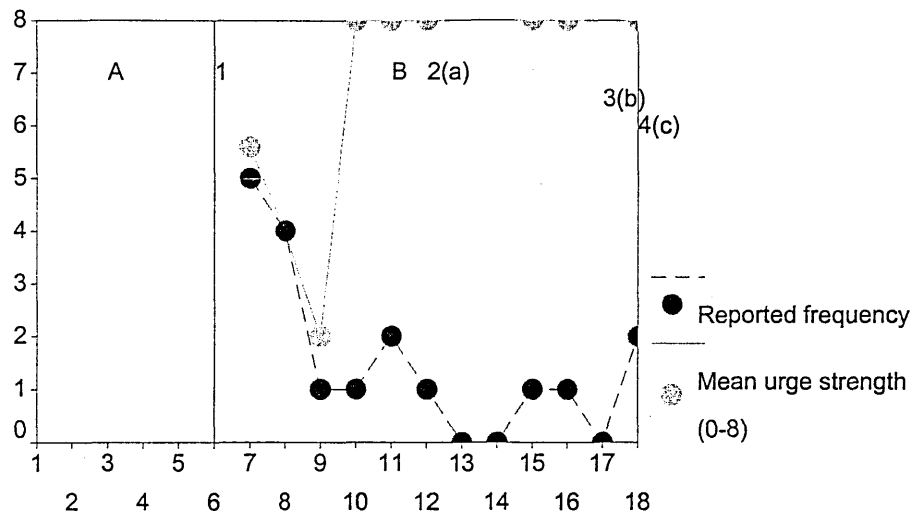
- (a) 1-2: Motivational interviewing, self-monitoring, assessment
- (b) 3-4: Education, stimulus control
- (c) 5-9: Cognitive restructuring, problem-solving

Figure 31.
Examples of gambling urge diary, Client 5

SITUATION	URGE		THOUGHTS	COPING STRATEGIES	OUTCOME
	Strength 0-8 scale	Duration			
Week 7 In city, few hours before next appointment. Had a meal / drink. went to pub.	5	6 mins	What am I doing on this machine? I'll probably lose!	Lost £3 rapidly. Recalled feeling of losing more. Left area (room).	Lost £3 Remained to finish drink in next room.
Week 9 Walked toward town-shop-P. Office-shop-pub fish & chips. Done too much on foot carrying too much weight	6 - 7	30 mins	Talked with barman. Told of M/C full + no jackpot paid out yet. Should be in luck.	Chatting with people. Not to do with gambling. Eventually left	Returned to M/C twice more and lost £20 - £25. Was quite drunk + depressed about walking further with heavy baggage.
Week 13 In Pub	2-3	15 mins	Only walked short distance, up a dozen steps. Sharp pain through foot - toe to heel. Low mood unhappy / disconsolate	After drinking became wreckless and gambled again, drank more. Didn't reach a physically comfortable state & mentally more stressed.	Lost approx. £15
Week 15 Shopping trip, rested while out. pub, had drink	2-3	2-3 minutes	If this £1 wins I'll have a cheap shopping list!	Finish drink by M/C (on way out) Limit money bet. Limit time / drink	After investing £2 win line £8, but didn't feel any better off - rather the opposite.

Figure 32. Reported gambling urges. Client 6

0 - 8 Scale. 8 = Maximum urge strength



Week. Baseline: 1-6 Treatment: 7-18

- (a) 1-2: Motivational interviewing, self-monitoring, assessment
- (b) 3: Education, stimulus control
- (c) 4: Cognitive restructuring, problem-solving

Figure 33.
Examples of gambling urge diary, Client 6

SITUATION	URGE		THOUGHTS	COPING STRATEGIES	OUTCOME
	Strength 0-8 scale	Duration			
Week 7 Just left Therapy. Going back to work	4	30 mins	Have a bet before going back to work	Went straight back to work	Urge went when I started work
Week 7 Had just finished tea. Looked in the paper and saw evening racecard.	8	2 hrs	Win some money for kids coming up	Went to Bookies	Lost £100
Week 8	4	1 Hr	Have a bet during lunchtime. Try and recoup losses.	Stayed in work	Urge died down when I started work again
Week 10	8	1 Hr	Win some money to pay bills	None	Went to Bookies. Lost £200
Week 15 Waiting for wages at work. Jewelry in Pawn - phone bill - debts	8	1 Hr	Win some money to pay off pressing bills. Can't cover what I owe	None	Went to Bookies Lost £200
Week 18. Compensation to pay - court on Friday and other debts. Had £440	8	1Hr 45	Win some more to cover it all	None	Won initially £600 up. Thought I was on a roll, win more. Lost £440

disjointed nature of treatment, with just four treatment sessions, this would indicate the target for treatment of changing perceived self-efficacy with regard to gambling urges was not achieved, despite the reduction in gambling frequency and duration which was achieved.

Charles, Anthony and Fred completed no gambling urge diaries.

In summary, gambling urge data indicate effects of treatment on reported urge strength for four of the five individuals who completed the diaries. The effects appeared related to the introduction of cue exposure in only one of the individuals. More commonly a reducing trend in urge strength was reported throughout treatment, apparently unrelated to the introduction of any particular phase of treatment.

Measures of Anxiety and Depression

Measures of anxiety and depressed mood were taken weekly, or whenever clients attended sessions. Their primary purpose was to explore the relationship between gambling behaviour, depressed mood and anxiety symptoms. For this purpose, correlation coefficients between BDI (Beck et al 1974) and BAI (Beck et al 1988) scores and gambling behaviour for the week prior to their completion (the week to which the questions refer) have been calculated.

For Gareth scores on the BDI moved from the 'mild', occasionally 'moderate' range during baseline and the early part of therapy to the 'minimal' range according to clinical norms (Beck and Steer 1993a) from week 15 onwards. Scores on the BAI were in the 'minimal' range throughout baseline and treatment (Beck and Steer 1993b).

A Pearson product-moment correlation coefficient revealed a significant positive correlation between scores on the BDI and BAI ($r = .8211$ $p < .001$). Correlation coefficients between BDI and BAI scores and gambling behaviour for the week prior to their completion are shown in table 20. Gambling frequency and financial losses are not correlated with scores on the BDI, and gambling duration only weakly positively

Table 20.

Client 1. Correlation Coefficients between BDI, BAI and gambling measures

	BDI Score	BAI Score	Gam. Freq.	Gam. Dur.	Gam. Losses
BDI Score	x	.8211 n=18 p=.000 ***	.3329 n=18 p=.177	.5119 n=18 p=.030 *	.2579 n=18 p=.301
BAI Score	.8211 n=18 p=.000 ***	x	.4882 n=17 p=.047 *	.5269 n=17 p=.030 *	.3490 n=17 p=.170

correlated ($r = .5119$ $p < .05$). Gambling frequency and duration are also weakly positively correlated with scores on the BAI (frequency $r = .4882$ $p < .05$, duration $r = .5269$ $p < .05$).

For David scores on the BDI and BAI were increasing during the baseline phase, and increased further at the beginning of the treatment phase. Scores on the BDI and BAI then remained higher than baseline scores throughout treatment and follow-up. The increase in BDI scores moved them from the 'moderate' range during baseline to fluctuating between the 'moderate' and 'severe' ranges during treatment and follow-up (Beck and Steer 1993a). Similarly, the increase in BAI scores moved them from the 'moderate' range during baseline to varying between the 'moderate' and 'severe' ranges during treatment and follow-up (Beck and Steer 1993b).

A Pearson product-moment correlation coefficient revealed a significant positive correlation between scores on the BDI and BAI ($r = .7655$ $p < .001$). Correlation coefficients between BDI and BAI scores and gambling behaviour for the week prior to their completion are shown in table 21. Unsurprisingly, given that measures of gambling reduced for David, as scores on the BDI and BAI increased, gambling frequency and financial losses are not correlated with these measures, and gambling duration only weakly correlated (BDI: $r = .4836$ $p < .05$ BAI: $r = .4878$ $p < .05$).

Harold consistently scored within the 'minimal' range on the BDI (Beck and Steer 1993a). He scored within the 'minimal' range on the BAI (Beck and Steer 1993b) on all occasions within baseline, and all but two occasions during treatment, when he scored within the 'mild anxiety' range. A Pearson product-moment correlation coefficient revealed a significant positive correlation between scores on the BDI and BAI ($r = .5553$ $p < .05$). Correlation coefficients between BDI and BAI scores and gambling behaviour for the week prior to their completion (the week to which the questions refer) are shown in table 22. There were no significant correlations between scores on the BDI and BAI and gambling behaviour.

Table 21.

Client 2. Correlation coefficients between BDI, BAI and gambling measures

	BDI Score	BAI Score	Gam. Freq.	Gam. Dur.	Gam. Losses
BDI Score	x	.7655 n=26 p=.000 ***	.0277 n=25 p=.896	.4836 n=25 p=.014 *	.1279 n=25 p=.542
BAI Score	.7655 n=26 p=.000 ***	x	-.1229 n=25 .558	.4878 n=25 p=.013 *	.1079 n=25 p=.608

Table 22.

Correlation Coefficients between BDI, BAI and gambling measures. Client 3

	BDI Score	BAI Score	Gam. Freq.	Gam. Dur.	Gam. Losses
BDI Score	x	.5553 n=20 p=.011 *	.1824 n=19 p=.455	.4451 n=19 p=.056	.4418 n=19 p=.058
BAI Score	.5553 n=20 .011 *	x	-.1578 n=19 p=.519	.0719 n=19 p=.770	.0686 n=19 p=.780

For Ernest scores on the BDI were within the 'severe' range on all but two occasions through baseline and the first part of treatment (Beck and Steer 1993a). At recommencement of therapy (weeks 19-34) scores on the BDI were within the 'moderate' range. Scores on the BAI followed a similar pattern, but with larger fluctuation in reported anxiety symptoms. Scores during baseline fluctuated between the 'mild', 'moderate', and 'severe' ranges, and during the first part of treatment were within the 'moderate' or 'severe' ranges (Beck and Steer 1993b). At recommencement of therapy scores on the BAI reduced to the 'mild', and then 'minimal' anxiety ranges. This would indicate that Ernest's mood was being significantly affected by the extent of his amphetamine use.

A Pearson product-moment correlation coefficient revealed a significant positive correlation between scores on the BDI and BAI ($r = .9605$ $p < .001$). Correlation coefficients between BDI and BAI scores and gambling behaviour for the week prior to their completion are shown in table 23. Gambling behaviour was not significantly correlated with these measures.

For Kevin scores on the BDI indicate a 'mild' level of depressed mood (Beck and Steer 1993a) which was stable through baseline and treatment. BAI scores remained within the 'minimal' range through baseline, with scores in treatment varying between the 'minimal' and 'mild' ranges (Beck and Steer 1993b).

A Pearson product-moment correlation coefficient revealed no significant correlation between scores on the BDI and BAI. Correlation coefficients between BDI and BAI scores and gambling behaviour for the week prior to their completion are shown in table 24. Gambling behaviour was not significantly correlated with these measures.

For John scores on the BAI never went beyond the 'minimal anxiety' range (Beck and Steer 1993b) through baseline and twelve weeks of treatment. Scores on the BDI however, were in the 'mild' or 'moderate' range during baseline, and varied between the 'mild' and 'severe' range during treatment. A Pearson product-moment correlation

Table 23.

Client 4. Correlation Coefficients between BDI, BAI and gambling measures

	BDI Score	BAI Score	Gam. Freq.	Gam. Dur.	Gam. Losses
BDI Score	x	.9605 n = 15 p = .000 ***	.0857 n = 14 p = .771	-.0407 n = 14 p = .890	.0480 n = 14 p = .870
BAI Score	.9605 n = 15 p = .000 ***	x	.1601 n = 14 p = .584	-.0405 n = 14 p = .891	.0918 n = 14 p = .755

Table 24.

Client 5. Correlation Coefficients between BDI, BAI and gambling measures

	BDI Score	BAI Score	Gam. Freq.	Gam. Dur.	Gam. Losses
BDI Score	x	.3077 n = 11 p = .357	.0694 n = 10 p = .849	.2030 n = 10 p = .574	-.2570 n = 10 p = .474
BAI Score	.3077 n = 11 p = .357	x	.4844 n = 10 p = .156	-.3616 n = 10 p = .305	.1758 n = 10 p = .627

coefficient revealed no significant correlation between scores on the BDI and BAI. Correlation coefficients between BDI and BAI scores and gambling behaviour for the week prior to their completion are shown in table 25. Gambling behaviour was not significantly correlated with these measures.

For Charles scores on the BDI were stable and within the 'mild' range (Beck and Steer 1993a) on all but one occasion through baseline and treatment, when the score reached the 'moderate' level. BAI scores were stable and within the 'minimal' range (Beck and Steer 1993b) on all but one occasion when the score reached the 'mild' range. A Pearson product-moment correlation coefficient revealed no significant correlation between scores on the BDI and BAI ($r = -.6746$ $p = .066$). Charles reported no gambling through baseline and up to dropping out of treatment.

For Anthony scores on the BDI showed a reducing trend, with the rating at entry to baseline being in the 'moderate' range, and all others in the 'minimal' range (Beck and Steer 1993a). Scores on the BAI were in the 'minimal' range (Beck and Steer 1993b) throughout. A Pearson product-moment correlation coefficient revealed no significant correlation between scores on the BDI and BAI. Correlation coefficients between BDI and BAI scores and gambling behaviour for the week prior to their completion are shown in table 26. Gambling behaviour was not significantly correlated with these measures.

For Fred scores on the BDI were in the 'mild' and 'moderate range (Beck and Steer 1993a) through baseline. Scores on the BAI were in the 'minimal' and 'mild' range (Beck and Steer 1993b). The limited number of measures completed precluded calculations of correlation coefficients.

In summary, scores on the BDI and BAI were significantly correlated with each other for four of the eight clients for whom a correlation coefficient could be calculated. There was a significant correlation between gambling duration and the measure of depressed mood for two of the clients, but no significant correlation was evident for the remaining five clients for whom there were sufficient measures to assess the relationship. Similarly,

Table 25.

Client 6. Correlation Coefficients between BDI, BAI and gambling measures

	BDI Score	BAI Score	Gam. Freq.	Gam. Dur.	Gam. Losses
BDI Score	x	.7612 n = 5 p = .135	-.1918 n = 5 p = .757	-.2235 n = 5 p = .718	.1874 n = 5 p = .763
BAI Score	.7612 n = 5 p = .135	x	.1302 n = 4 p = .870	.0550 n = 4 p = .945	.7031 n = 4 p = .297

Table 26.

Client 8. Correlation Coefficients between BDI, BAI and gambling measures

	BDI Score	BAI Score	Gam. Freq.	Gam. Dur.	Gam. Losses
BDI Score	x	.5410 n = 7 p = .210	-.4677 n = 6 p = .350	-.4441 n = 6 p = .378	.0443 n = 6 p = .934
BAI Score	.5410 n = 7 p = .210	x	-.6944 n = 6 p = .126	-.2735 n = 6 p = .600	.2016 n = 6 p = .702

there was a significant correlation between gambling duration and the measure of anxiety for the same two individuals. There was a significant correlation between gambling frequency and the measure of anxiety for just one client.

Other Measures

Three other measures provide an indication of the wider impact on symptoms and functioning of the treatment received. These were the Brief Symptom Inventory (BSI) (Derogatis and Melisaratos 1983), the Inventory of Interpersonal Problems-32 (IIP-32) (Horowitz et al 1988; Barkham et al 1996) and the Life Adjustments Scale (Marks 1986). Details of these are provided in the method chapter.

For Gareth, scores on these measures are shown in table 27. Scores on the BSI (Derogatis and Melisaratos 1983), showed no change between entry to the research and treatment session 7, with a reducing trend after this point to discharge. Gareth met caseness criteria on the BSI at all points up to and including treatment session 10, (Derogatis 1993). He did not meet caseness criteria at discharge. This generalisation of the benefit deriving from therapy to non-gambling areas is also supported by the changes evident in scores on the IIP-32 global score (Horowitz et al 1988; Barkham et al 1996) and on the Life Adjustments Scale (Marks 1986).

For David table 28 gives details of general measures taken. These show an increase in psychiatric symptomatology as measured by the BSI (Derogatis and Melisaratos 1983) between entry to baseline and first treatment session, and no reduction in symptomatology through treatment and follow-up. David met caseness criteria on the BSI at all measurement points (Derogatis 1993). Both the depression and anxiety subscales t scores increased between baseline and first treatment session and did not reduce through treatment or follow-up. This parallels the increase in scores on the BDI and BAI through the baseline period. Similarly there is an increase in scores on the IIP-32 (Horowitz et al 1988; Barkham et al 1996) between entry to baseline and first treatment session, with no subsequent reduction during treatment. On the Life Adjustments Scale (Marks 1986) there is an increase in severity of impact change

General Symptomatic Measures Client 1

Stage	Week	BSI GSI Raw	BSI GSI t score	Caseness Criteria (x)	IIP-32 Global	Life Adj. mean (0-8)
Research Entry	0	1.09	72	x	1.37	4.0
Treatment session 1	6	1.0	72	x	2.09	5.4
Treatment session 7	13	1.11	72	x	2.22	4.2
Treatment session 10	19	0.51	61	x	1.47	4.2
Discharge	35	0.19	51		0.81	2.0

Table 28.

General Symptomatic Measures Client 2

Stage	Week	BSI GSI Raw	BSI GSI t score	Caseness Criteria (x)	IIP-32 Global	Life Adj. mean (0-8)
Research Entry	0	0.64	64	x	1.66	3.25
Treatment session 1	6	1.70	80	x	2.12	3.75
Treatment session 4	12	2.23	80	x	2.25	5.75
Treatment session 7	19	2.30	80	x	2.31	5.0
Treatment session 11	28	2.15	80	x	2.38	3.75
Discharge	35	2.19	80	x	1.78	3.25
7 week follow-up	42	2.17	80	x	2.125	2.75
4 month follow-up	54	1.83	80	x	1.81	3.5
6 month follow-up	61	2.04	80	x	2.31	3.25
12 month follow-up	85	2.23	80	x	2.22	4.5

through the early stages of treatment compared to research entry, with a return to baseline levels by the end of treatment. In the context of significant changes in gambling behaviour, there is a failure to generalise the benefits to other areas of David's functioning.

For Harold table 29 gives details of other measures taken. As for the BDI and BAI Harold scored very low on psychiatric symptomatology as measured by the BSI (Derogatis and Melisaratos 1983) throughout. At no point did he meet caseness criteria on the BSI (Derogatis 1993). Both the IIP-32 (Horowitz et al 1988; Barkham et al 1996) and the Life Adjustments Scale (Marks 1986), however, indicate that the gains made by Harold relating to gambling within treatment generalised to other areas of his functioning.. The BSI and IIP-32 were not completed at 6 month follow-up due to refusal by Harold to complete them at this point.

For Ernest table 30 gives details of other measures taken. On the BSI (Derogatis and Melisaratos 1983), Ernest was highly symptomatic. There was a marked reduction in scores between treatment sessions six and eight, which coincided with the break in therapy to allow Ernest time to deal with his amphetamine use. However, even at treatment session eight scores still met criteria for caseness (Derogatis 1993). Scores on the IIP-32 (Horowitz et al 1988; Barkham et al 1996) indicate a high level of disruption of interpersonal relationships, which reduced slightly by treatment session eight. There are also reported high mean levels of disruption of social functioning as indicated by the Life Adjustment scores (Marks 1986).

For Kevin table 31 gives details of other measures taken. Scores on the BSI (Derogatis and Melisaratos 1983), met caseness criteria at all measurement points (Derogatis 1993). The IIP-32 (Horowitz et al 1988; Barkham et al 1996) and Life Adjustment scores (Marks 1986) indicate that the gambling problem was not affecting Kevin's interpersonal or social functioning significantly.

For John table 32 provides a summary of other measures taken. On the BSI (Derogatis

Table 29.

General Symptomatic Measures Client 3

Stage	Week	BSI GSI Raw	BSI GSI t score	Caseness Criteria (x)	IIP-32 Global	Life Adj. mean (0-8)
Research Entry	0	0.06	45		1.41	4.0
Treatment session 1	12	0.13	45		1.31	5.0
Treatment session 6	18	0.06	45		1.03	3.8
Treatment session 12	26	0	35		0.88	3.8
Discharge	33	0.02	35		0.84	1.0
6 month follow-up	61	not comp		--	not comp	4.2

Table 30.

General Symptomatic Measures Client 4

Stage	Week	BSI GSI Raw	BSI GSI t score	Caseness Criteria (x)	IIP-32 Global	Life Adj. mean (0-8)
Research Entry	0	2.66	80	x	2.62	5.6
Treatment session 1	6	2.19	80	x	2.16	6.6
Treatment session 6	12	3.02	80	x	2.56	7.0
Treatment session 8	28	1.32	78	x	1.87	7.4

and Melisaratos 1983) John met caseness criteria at treatment sessions 1 and 4 (Derogatis 1993). Interestingly the IIP-32 (Horowitz et al 1988; Barkham et al 1996) shows an increase in interpersonal problems through treatment. The mean Life Adjustment score (Marks 1986) also increased through treatment.

For Charles table 33 provides a summary of other measures taken. On the BSI (Derogatis and Melisaratos 1983) Charles met caseness criteria (Derogatis 1993) at both measurement points. There was some reported disruption of interpersonal functioning as indicated by the IIP-32 (Horowitz et al 1988; Barkham et al 1996), and relatively low scores on the Life Adjustment scale (Marks 1986).

For Anthony and Fred table 34 provides a summary of the other measures taken. These indicate that Anthony was reporting minimal psychiatric symptomatology as measured by the BSI (Derogatis and Melisaratos 1983), not meeting caseness criteria at either measurement point (Derogatis 1993). Some interpersonal disturbance is reported at research entry. The complete absence of any reported symptoms at treatment session 1 can probably be best explained in terms of a lack of compliance with measurement. Fred met caseness criteria on the BSI at both measurement points (Derogatis 1993). The level of Life Adjustment (Marks 1986) and IIP-32 (Horowitz et al 1988; Barkham et al 1996) scores indicate some disruption of social and interpersonal functioning.

In summary two of the three individuals who completed treatment experienced generalised benefits on measures of general psychiatric symptomatology, interpersonal functioning and social adjustment. None of the clients who dropped out of treatment evidenced such generalised benefits.

Reported reasons for dropping out of treatment

Six of the nine clients dropped out of therapy at various stages. All were offered opportunities to re-engage with therapy before being discharged following non-attendance at sessions. After discharge all except Anthony were sent the Ending Treatment Questionnaire. Anthony was asked verbally for his reasons for ending

Table 31.
General Symptomatic Measures Client 5

Stage	Week	BSI GSI Raw	BSI GSI t score	Caseness Criteria (x)	IIP-32 Global	Life Adj. mean (0-8)
Research Entry	0	0.58	64	x	0.41	1.8
Treatment session 1	6	0.62	64	x	0.47	0.6
Treatment session 7	14	0.58	64	x	0.72	2.4

Table 32.
General Symptomatic Measures Client 6

Stage	Week	BSI GSI Raw	BSI GSI t score	Caseness Criteria (x)	IIP-32 Global	Life Adj. mean (0-8)
Research Entry	0	0.51	61		0.91	5.0
Treatment session 1	6	0.62	64	x	1.03	2.4
Treatment session 4	18	0.72	65	x	1.38	6.0

Table 33.
General Symptomatic Measures Client 7

Stage	Week	BSI GSI Raw	BSI GSI t score	Caseness Criteria (x)	IIP-32 Global	Life Adj. mean (0-8)
Research Entry	0	0.75	67	x	1.59	3.5
Treatment session 1	6	0.62	64	x	1.22	2.75

Table 34.
General Symptomatic Measures Clients 8 and 9

Stage	Week	BSI GSI Raw	BSI GSI t score	Caseness Criteria (x)	IIP-32 Global	Life Adj. mean (0-8)
Client 8						
Research Entry	0	0.11	45	-	1.44	Not comp
Treatment session 1	6	0.02	35	-	0	Not comp
Client 9						
Research Entry	0	0.89	71	x	1.25	5.2
Treatment session 1	6	0.66	65	x	1.28	4.0

treatment. Table 35 summarises the number of sessions attended by each client, and the reasons given by them for dropping out of treatment.

Individual case summaries

Gareth reported a 16 year history of problematic gambling, supported by data from the six months prior to entry to the study, and baseline data which predicted continued gambling in the absence of intervention. He scored within the pathological gambling range, at the beginning and end of the baseline period on the SOGS, and met DSM IV criteria for pathological gambling at entry to baseline.

During the treatment phase Gareth's gambling behaviour reduced markedly, with changes in mean level of gambling frequency, duration and financial losses, in comparison to the baseline. The change was clearer when slot machine gambling was separated out, and the main agreed problem behaviour, gambling on horse and dog racing was viewed separately. Statistically significant change was reported for the frequency and duration of gambling behaviour, between baseline and treatment phases, and the change was sustained through a ten week follow-up period. There was a lack of statistical significance for financial losses related to gambling, between baseline and treatment phases, this appearing to be related to the influence of slot machine gambling wins.

During treatment, Gareth identified a wish to continue gambling on slot machines, in a social context, and for limited amounts of money. This was agreed in therapy as an appropriate target in the context of enhanced self-efficacy with regard to gambling behaviour generally. That is, the focus of treatment was on problems with gambling rather than gambling itself. He was able to achieve this goal, indicating that changes in perception of control of the behaviour were central to the changes he achieved.

At the end of treatment, Gareth's score on the SOGS was in the normal range. His personally defined problem and target statements were scored as being almost totally achieved, and there were general improvements in measures of mood, relationships and social adjustment. Overall, the case represents a clinically significant change through

Table 35.
Reasons given by clients who dropped out of treatment

Client	No. of treatment sessions	Reasons given for dropping out
4	11	Needed to deal with other problems I have. Could not concentrate on the treatment as of yet
5	9	No reply
6	4	No reply
7	3	Needed to deal with the problem on my own
8	1	I can only help myself
9	1	Needed to deal with the problem on my own

treatment, maintained to ten week follow-up.

David reported a twelve year history of problematic gambling, limited other social activities, and long-term unemployment. He had few social interests other than gambling, and within his social network, gambling was the norm. At entry to baseline he scored within the pathological gambling range on the South Oaks Gambling Screen (Lesieur and Blume 1987), and met DSM IV criteria (APA 1994) for pathological gambling.

During treatment, David reduced the frequency of his gambling, and the extent of his financial losses, and maintained this change over the first 9 months of follow-up. The change in gambling behaviour was in the context of high scores on the measures of anxiety and depressed mood. David reported subjective improvement on personally defined gambling problem and target statements, this change being maintained to the six month follow-up point, but partially lost by the twelve month follow-up.

At no time through treatment or follow-up did David completely stop gambling. His scores on the South Oaks Gambling Screen remained in the pathological range at discharge from treatment, and throughout follow-up. He returned to uncontrolled gambling after 11 months of follow-up. Overall then, treatment was partially effective with relapse in follow-up

Harold reported a 15 year history of problematic gambling, with periodic bouts of gambling, linked to availability of money, and financial and other stressors. His gambling tended to be cyclical, with significant amounts of gambling immediately after being paid each month, followed by a cessation of gambling until his next pay-day. He entered the research under pressure to change, specifically related to a threat to his employment resulting from use of his employer's money to fund his gambling. Over a twelve week baseline period, six weeks longer than planned, he had one period of eighteen days where he gambled extensively, and in a way characterised by "chasing losses". His baseline data predicted continued gambling in the absence of intervention. Harold scored within the pathological gambling range, at the beginning and end of the baseline period on the

SOGS, and met DSM IV criteria for pathological gambling at entry to baseline.

During the treatment phase Harold had three brief periods of gambling, the third of which was a four day period characterised by a pattern of “chasing losses”. Subsequently he had an eleven week period in treatment during which he did not gamble. At discharge from treatment he identified marked improvement in personally defined problem and target statements related to gambling. Social adjustment and interpersonal difficulties showed improvements at discharge. Following a thirteen week period in follow up where he did not gamble, initially limited gambling gradually escalated, such that at five months following discharge from treatment chasing behaviour was again evident, and there was a partial loss of perceived improvement as measured by the problem and target statements. At the end of treatment, and at six month follow-up Harold scored within the pathological gambling range on the SOGS. Overall, the case represents a clinically significant change during treatment, with a degree of relapse during follow-up.

Ernest reported a nine year history of problematic gambling, together with amphetamine use over a six year period. Through baseline he managed to abstain from gambling, and continued to gamble infrequently but with larger amounts through treatment. Following a six week period during which he was largely non-compliant with treatment, possibly associated with the extent of his amphetamine use, treatment was suspended. On recommencement of treatment nine weeks later, absence of amphetamine use and improved compliance with treatment were associated with apparent increase in his control over gambling. Ernest withdrew from treatment after a further five sessions, indicating that he considered that he needed to deal further with his amphetamine use before working on his gambling problem further. The case may indicate the limits of applicability of the treatment approach being utilised in the context of co-morbid substance misuse. Issues related to interpreting a baseline without gambling will be addressed in the discussion.

Kevin reported an eight year history of problem gambling, with significant self-managed improvement as a result of pressure from his girlfriend over the four months prior to

research entry. He further reduced his gambling during baseline, to the extent that he had total losses of less than £5 over the six week baseline period. During treatment his gambling increased in frequency, duration and amounts lost. This was despite good frequency of attendance at sessions and some application of approaches. Treatment appears to have been complicated by co-morbidity with chronic pain and symptoms of post traumatic stress disorder, although these were not evidenced on measures of anxiety and depression. Self-recording regarding gambling urges indicated a continuing link between pain, alcohol and gambling, with urges to gamble of reported low strength resulting in gambling behaviour on slot machines. Overall the case possibly represents the limits of applicability of the approach where there are other current problems.

John reported a twenty year history of problematic gambling, with repeated theft from his employers to fund gambling activity. He had a number of convictions and two periods in prison as a result of this behaviour. He entered treatment under pressure to change whilst awaiting sentencing for theft of £4,000 from his latest employer. John engaged in treatment to the extent of completing gambling urges diaries and applying stimulus control strategies largely as agreed. However his attendance was sporadic and he attended only four sessions over twelve weeks.

John's gambling reduced in frequency during baseline, and there was a further reduction during treatment. He was still losing sums in excess of £400 on a single period of gambling towards the end of the twelve week period. Self-reports indicated little change in self-efficacy regarding gambling, and this is reflected in continuing high scores on the problem and target statements. John reported increasing symptoms on the BSI through treatment, together with a reported increase in interpersonal problems. John did not respond to the Ending Treatment Questionnaire. He ceased attendance at sessions shortly after being sentenced to a Combination treatment order, with probation and Community Service, together with a fine. His drop-out from treatment immediately following sentencing raises the possibility that seeking to avoid a custodial sentence was one of his motivating factors for entering treatment.

Charles reported an eighteen year history of problematic gambling, with repeated theft from employers to fund gambling activity. He entered treatment under pressure to change, as he was awaiting sentencing for theft from his last employer. Charles had had many years of contact with Gamblers Anonymous, and subscribed to the Gamblers Anonymous model of compulsive gambling. As discussed in Section One, this model views compulsive gambling as a lifelong, uncontrollable problem which requires continual vigilance to manage with the support of the fellowship of Gamblers Anonymous. The social learning perspective utilised in treatment is somewhat different from the Gamblers Anonymous model, and includes the view that control over behaviour can be learnt. Charles appeared to have difficulty in noticing urges to gamble in the absence of gambling behaviour, as indicated by his failure to complete self-monitoring diaries. He completely refrained from gambling through baseline and the first three weeks of treatment. He then withdrew from treatment on commencing gambling, this being understandable within the complete abstinence goal of Gamblers Anonymous. Motivation to engage in treatment may have been related to his awaiting sentencing for his offence. Clearly there were possible benefits to be derived from the appearance of motivation to change. However, Charles did withdraw from therapy before sentencing. Overall he can be considered to have failed to engage successfully with the therapy.

Anthony failed to engage with treatment, appearing to find the motivational approach unhelpful. He had an intensive involvement with gambling, with little evidence of emotional disturbance resulting from the extent of this involvement. As such he may be considered to be a precontemplator as defined by Prochaska and DiClemente (1986). He may have required a different approach to that offered.

Fred failed to engage with treatment, appearing to find the motivational approach upsetting and unhelpful. His recent history of depression, and continuing symptoms of depression may have contributed to his intolerance of distress. Analysis of the treatment session indicated that the approach was appropriately applied. However, a different approach to that offered may have been appropriate with a view to engaging him more effectively.

DISCUSSION

This chapter will discuss the strengths and problems associated with the single case experimental design with replications that has been utilised. Then the results of this part of the study will be considered, and compared with findings from other published studies. Issues related to the application of the therapy protocol will be discussed, with regard to the research questions for this part of the study. Finally, an overview of issues will be provided, together with the rationale for the use of a grounded theory approach and the use of clinical materials for purposes of analysis.

Methodology

The research questions for this part of the study were:

- Can a cognitive behavioural intervention assist gamblers meeting criteria for pathological gambling to change their behaviour to a clinically significant extent?
- What is the effect of the sequential addition of different elements of the treatment programme on gambling behaviour?
- To what extent does the sequential addition of elements of the intervention affect gambling related urge strength?
- To explore any possible link between gambling behaviour and depressed mood among the treated group of clients?
- To explore any possible link between gambling behaviour and arousal among the treated group of clients?

The design utilised has both strengths and weaknesses in seeking to answer these questions.

Strengths of the design relate firstly to the advantages inherent in the intensive study of individuals where there is limited information regarding clinically effective approaches (Kazdin 1992). Continuous monitoring of the main outcome variable, gambling behaviour, via self-report diaries, supplemented by other measures of gambling outcome have provided highly detailed information. This has enabled variability in behaviour and

response to therapy across the cases to be highlighted. The detailing of the application of the intervention has enabled relationships between the sequential addition of elements of the intervention, and outcome in the form of gambling behaviour to be investigated.

Secondly, the consistent use of a process measure in the form of the gambling urges diary has enabled the further elaboration of the relationship between the intervention and this aspect of control of the behaviour to be investigated. Although this data was available for only five of the clients, the impact of the introduction of cue exposure on two of the individuals reported urge strength, but not on others, provides some indication regarding variability of response across individuals.

A third strength of the design has been the fixed length baseline, which enables the explanation of change occurring as a result of the reactive introduction of treatment to be excluded (Harris and Jenson 1985).

Another strength has been the audiotaping of all treatment sessions to allow for a manipulation check to be undertaken on the intervention, to assess adherence to the treatment protocol. The outcome of the manipulation check, indicating that the elements of the protocol were being applied in the way recorded by the researcher supports the view that there was adherence to the treatment protocol. In addition the assessed skill level indicates that the approaches were being applied in an appropriately skilful manner. The specificity of use of motivational interviewing particularly, being evident in all assessed sessions 1 and 2, would support this interpretation.

The choice to utilise a limited range of exclusion criteria has ensured that the sample studied represents a similar group to those that may be referred in normal clinical practice in other settings, increasing the generalisability of results. This has also enabled the limits of applicability of the approach as applied to be investigated. Problems resulting from the limited exclusion criteria will be explored below.

The range of psychometric measures utilised, and particularly the repeated use of the BDI (Beck et al 1974) and BAI (Beck et al 1988) have allowed patterns of change in mood

states to be contrasted with changes in gambling behaviour. In addition the generalisation of effects of the treatment to other areas of functioning has been possible to report.

A number of weaknesses in the design can be identified. These can be grouped as those which relate to the problems inherent in a single case experimental design utilising an AB format, rather than a more complex design; those relating to the nature of the client's gambling behaviour; and those relating to practical difficulties with the implementation of the protocol as planned.

As noted in the methodology section, the AB design is inherently weaker than more complex single case experimental designs such as the ABAB design which offer more possibilities for the controlling effect of the intervention on the dependant variable to be shown (Barlow and Hersen 1984). The AB design can be considered a quasi-experimental design (Kazdin 1992), which can only indicate the controlling effect of the intervention in the presence of a number of replications. Specifically, controlling for the possibility that change in the behaviour occurs as a result of a maturation effect (Hilliard 1993) is problematic.

The utilisation of a fixed baseline, and the achievement of a number of replications increase the likelihood that these alternative explanations for change occurring can be excluded. In addition, maturation effect explanations can be viewed as less credible for chronic problems such as those reported by clients in this study (Hilliard 1993).

A more complex design such as the ABAB design would have been difficult to implement for two reasons. Firstly, the educational nature of cognitive behavioural psychotherapy (Hawton et al 1989) means that some of the procedures undertaken were irreversible (Barlow and Hersen 1984). Secondly, there were anticipated difficulties in gaining ethics committee support for a study involving the withdrawal of the intervention.

The nature of a number of the clients' gambling behaviour provides further difficulties for the design. Specifically, despite meeting severity criteria for entry to the study, some clients had highly unstable baselines, with either limited gambling, or a cyclical pattern of gambling. Unstable baselines make visual and statistical analysis of single case

experimental design data problematic (Kazdin 1982). An example was client 3, Harold, where a cyclical pattern of gambling involvement was evident, linked to access to money in the form of his monthly pay cheque. Blocking data in weekly periods has helped to smooth some of the daily variability of the behaviour. An interesting challenge has been in how to interpret financial losses related to gambling, where greater involvement in gambling, an indication of increased severity, sometimes results in the client winning money, rendering statistical analysis problematic. This has been dealt with by close examination of the patterns of data, with reliance on visual analysis, rather than statistical analysis for financial losses.

Practical difficulties with implementation of the protocol have arisen largely as a result of the measurement burden on clients. Changes on some of the measures, with particular clients, may be most appropriately interpreted as the result of measurement fatigue, rather than as genuine clinical changes, although clearly this cannot be tested. Specifically, the weekly completion of the BDI (Beck et al 1974) and BAI (Beck et al 1988) would be expected to have resulted in some practice effects, although both instruments are specifically designed for use in this manner (Beck and Steer 1993a; Beck and Steer 1993b). An additional difficulty has been in the non-completion of Timelines (Sobell et al. 1980) regarding gambling over the six months prior to research entry. Use of this method of enhancing the quality of retrospective reporting of behaviour was proposed in part in response to concerns regarding the instability of gambling behaviour baselines discussed above. It was used effectively with client 1, Gareth, but only one other client completed a timeline in sufficient detail to warrant reporting. This resulted from the researcher not ensuring timelines were completed within the first two sessions of treatment as planned, in an effort to ensure the overall burden of measurement did not interfere with the therapeutic relationship excessively. The use of the IIP-32 (Horowitz et al 1988; Barkham et al 1996) provided limited additional data regarding the outcome of therapy. The data comparing outpatient samples and non-clinical samples within Barkham et al (1996) shows a large degree of overlap. The researcher's experience was that it was not a sufficiently sensitive measure for use within a single case experimental design.

In retrospect the researcher would have included a small number of additional measures. These would have included a simple continuous measure of perception of control as

utilised by the Ladouceur group (Bujold et al 1994; Ladouceur et al 1994; Sylvain et al 1997; Ladouceur et al 1998). In addition, number of DSM IV criteria for pathological gambling (APA 1994), together with a direct measure of gambling related self-efficacy such as a modified version of the Situational Confidence Questionnaire (Annis and Graham 1988) would have added to the overall outcome measures.

Overall, the design has allowed a large amount of specific data to be gathered from a small number of clients in a way that addresses the question regarding the ability of the treatment approach to change to a clinically significant extent the behaviour of clients suffering from pathological gambling. In addition the identification of the different elements of the treatment has allowed an initial evaluation of the effects of the sequential addition of those elements on both gambling behaviour and reported gambling urge strength for different individuals. The claimed links between gambling behaviour and both depressed mood and anxiety have been possible to investigate through the repeated use of the BDI (Beck et al. 1974) and the BAI (Beck et al. 1988).

Results

The results of the study indicate that the cognitive behavioural approach being evaluated was largely ineffective in enabling clients meeting criteria for pathological gambling to change their gambling behaviour to a clinically significant extent. The approach was ineffective for a majority of clients, with drop-out prior to completion of treatment the outcome for six of the nine research clients. The three clients who completed treatment all achieved clinically significant changes in gambling behaviour. Two of these individuals subsequently relapsed during the follow-up period, with the third only being possible to follow-up for ten weeks due to refusal to attend further follow-up sessions.

Despite this weak effect, it was apparent that change was occurring within treatment for all the clients who completed therapy, and that statistically significant changes did occur. Measures of gambling related self-efficacy in the form of the problem and target statements (Marks 1986) identified a reduction in perceived severity of the problem for all three clients at the end of treatment, which was only partially lost in follow-up by two of

the individuals. A process measure, that of urge strength, also reduced within therapy for all three of the clients who completed therapy.

The three clients all met DSM IV criteria for pathological gambling (APA 1994), and scored in the pathological range on the SOGS (Lesieur and Blume 1987) at entry to the study. They were heterogeneous in the nature of their gambling behaviour, ethnic origin, forensic history and previous mental health contact. All identified themselves as having problems with gambling for at least twelve years prior to entering the research.

Published clinical outcome research into pathological gambling has tended to focus on clients who utilise primarily variants of slot machine gambling (Echeburua et al 1996; Sylvain et al 1997; Echeburua et al 2000). The successful application of a cognitive behavioural approach to individuals who gamble in off-course bookmakers would have wider applicability in Britain, where slot machine gamblers are reported to make up less of the problem gambling population than gamblers in off-course bookmakers (Sproston et al 2000).

For those clients who dropped out of treatment, the effects of treatment were not necessarily neutral. Client 6, John, showed a reduction of gambling behaviour within treatment prior to drop-out. Another, client 5, Kevin, showed significant increases in gambling behaviour following the introduction of treatment. Again, the absence of consistent effects of treatment amongst those who dropped out indicates the limits of effectiveness of the approach.

High levels of drop-out are a common feature of reported outpatient group treatment studies of pathological gambling (Echeburua et al 1996, Sylvain et al 1997), in addition to attendance at Gamblers Anonymous (Stewart and Brown 1988), although two thirds of clients failing to complete therapy is high. A wide range of reasons for why clients may choose to drop-out from treatment can be posited (Pekarik 1992). The six clients who did drop out of therapy were asked for their reasons, and the four who responded stated that they needed to deal with the problem on their own, needed to deal with other problems, or could only help themselves. Despite efforts to minimise pressure to respond in socially acceptable ways to the question, it may be that these replies are simply the least personal

on the list of choices, which included issues regarding the therapist-client relationship. It is probably not appropriate to speculate further.

The effects of the sequential addition of elements of treatment

Overlaying treatment session details onto the graphical presentation of the measure of gambling behaviour for five of the clients indicated no specific effect of the sequential addition of any element of treatment other than cue exposure (Greenberg and Rankin 1982; Sharpe and Tarrier 1992). The introduction of cue exposure appeared to have a marked effect on gambling behaviour for two of the clients. Cue exposure was undertaken to identified triggers to gambling urges for each of the three clients who completed therapy and client 4. Triggers included graded cue exposure to bookmakers for clients 1, 2 and 3, and slot machine arcades for clients 4 and 3.

Qualitative information regarding the impact of cue exposure, from gambling urge diaries, indicated that it had significant effects on gambling urge strength for clients 1 and 3, and less clear benefits for client 2. Cue exposure was associated with a reported reduction in arousal and subjective urge to gamble in all clients who undertook the procedure, both accompanied and alone. It was utilised within the cognitive behavioural model as a self-efficacy raising procedure. It could be argued to be having an effect through a process similar to habituation of arousal in phobic disorders (Marks 1981; Symes and Nicki 1997), or as a cognitive procedure (Bandura 1977; Beck et al 1989; Beck, Wright, Newman and Liese 1993). The contrast with the Gamblers Anonymous approach is clear in that the exposure to previous cues to gamble promotes the view that it is possible for problem gamblers to learn control over their responses. The apparent impact of the sequential addition of cue exposure can be related to the findings of the Echeburua et al (1996) study. They found that outcomes favoured a stimulus control followed by exposure with response condition over a group cognitive therapy intervention.

As discussed above no direct measure of self-efficacy regarding gambling was taken. However, gambling related problem and target statements (Marks 1986) can be considered indirect measures. These were agreed within the first three sessions of treatment, so no baseline measures are available. The three clients who completed treatment all reported marked changes on the gambling related problems and targets statements within treatment.

The links between depressed mood and gambling behaviour

As noted in the discussion of the methodology above, the repeated use of the BDI (Beck et al 1974) allowed scores on this measure to be correlated with self-reports of gambling behaviour. Gambling as a means of escaping from problems or dysphoric mood is a diagnostic criteria in DSM IV (APA 1994). Low mood is argued to be a trigger to gambling for problem gamblers by Griffiths (1995b). Therefore, amongst the sample it would have been anticipated that a measure of low mood would correlate with the extent of gambling for at least some of the individuals. In fact, for the seven clients for whom correlation coefficients could be calculated, in only two was a significant correlation between BDI score and gambling behaviour recorded. For both these individuals a significant correlation at the .05 level was found for gambling duration only.

The links between anxiety and gambling behaviour

The repeated use of the BAI (Beck et al 1988) allowed scores on this measure of anxiety to be correlated with self-reports of gambling behaviour. Aversive tension when attempting to cease gambling has been proposed as an aspect of gambling pathology within DSM IV (APA 1994). This aversive tension has been the reported focus of the imaginal desensitisation treatment (McConaghy 1988; McConaghy et al 1991), with state anxiety at the end of treatment, as measured by the State-Trait Anxiety Inventory (Spielberger, Gorsuch and Lushene 1970), being reported to predict uncontrolled gambling twelve months following treatment (McConaghy et al 1983). Therefore, amongst the sample it would have been anticipated that a measure of anxiety would correlate with the extent of gambling for at least some of the individuals. In fact, for the seven clients for whom correlation coefficients could be calculated, in only two was a significant correlation between BAI score and gambling behaviour recorded. For one individual a significant correlation at the .05 level was found for gambling duration. For the other a significant correlation was found at the .05 level for both gambling frequency and duration.

Generalisation of benefits of treatment

The range of other measures that were completed enabled the identification of generalisation of gains to areas of psychiatric symptomatology, interpersonal functioning and social adjustment. Two of the three clients who completed therapy evidenced

generalised benefits of treatment. One, client 2, David, did not. Given the severe disruption of functioning reported within the literature to be associated with problem gambling (Productivity Commission 1999; Department for Culture, Media and Sport 2001), such wider impacts may be significant to the prevention of subsequent relapse.

Process observations

As discussed in Section One, gambling is a heterogeneous activity, with an advantage of the single case experimental design with replications being the opportunity to evaluate the treatment approach rigorously with a diverse population of individuals meeting pathological gambling criteria. One common factor across individuals was the chronic nature of difficulties with gambling. All clients reported self-defined problematic gambling of at least four years duration, with gambling having commenced during their teenage years. In addition to the outcome data, process notes were made during the study. These highlighted a number of issues to consider with regard to the relative ineffectiveness of the treatment approach. These issues relate to ambivalence regarding gambling, reported triggers to involvement in gambling, and gambling related cognitions.

Ambivalence regarding gambling

To enter the study, clients had to be requesting help with a gambling problem which they reported to be their primary problem. In the context of this treatment seeking behaviour, ambivalence regarding gambling was a major issue. This issue was anticipated and addressed directly within the protocol through the inclusion of motivational interviewing at first and second treatment sessions. Motivational interviewing was developed within the alcohol field (Miller 1983, Miller and Rollnick 1991) to address the difficulties found clinically in engaging clients in therapy. The purpose, as described by Rollnick and Miller (1995) is to enable the client to consider and resolve ambivalence regarding addictive behaviour. Within the context of Prochaska and DiClemente's (1986) stages of change model it is viewed as an approach suitable for individuals considered Contemplators, enabling them to move through the Decision to Action stages. Associated with this, Miller and Rollnick (1991) emphasise discomfort, self-efficacy, personal responsibility for behaviour and self-esteem.

The perception that there were some positive aspects to gambling was reported by all clients. This most commonly related to the possibility of winning money, but also included issues of cheering oneself up following interpersonal disputes, and gambling being a means of dealing with low mood. The excitement of gambling was an issue for a number of research participants. These themes relate well to those reported by Cummins, Gordon and Marlatt (1980) in terms of relapse experiences for a range of addictive behaviours. In contrast to similarities regarding the positive aspects of gambling there was variability with regard to reported distress regarding gambling. Specifically client 8, Anthony, appeared to be experiencing little distress, as indicated by anxiety and depression measures through baseline, at the same time as reporting high levels of gambling. His apparent irritation with the motivational interviewing approach could be viewed as indicating a lack of concern regarding the behaviour.

In contrast client 9, Fred, reported a high level of distress regarding gambling, but also stated that he had found the motivational interviewing approach taken in his first treatment session “too upsetting”. Fred had previously received treatment for depression, and was scoring in the ‘mild’ to ‘moderate’ range on the BDI (Beck et al 1974; Beck and Steer 1993a). In line with Miller and Rollnick (1991), it may be that Fred was too distressed to benefit from the focus on ambivalence. However, many of the clients who continued beyond treatment session 1 scored significantly higher on the BDI than did Fred.

Ambivalence regarding treatment, and the issue of coercion can be identified for both client 6, John, and client 7, Charles. Both were awaiting sentencing for theft from their employers at entry to the study. Although both entered treatment voluntarily, the fact that John repeatedly cancelled appointments, attending only 4 treatment sessions over 12 weeks indicated limited engagement with treatment. Charles reported attachment to a Gamblers Anonymous perspective (Gambler Anonymous undated), viewing himself as a compulsive gambler. He dropped out from treatment after 3 sessions, following a return to gambling.

A further issue regarding ambivalence related to the ability of client 1, Gareth, to differentiate between different forms of gambling during treatment. Initially treatment

targeted both gambling on horses and dogs, and slot machine gambling. However, midway through treatment it was agreed that Gareth could continue to gamble on slot machines, in a social context, and for limited amounts of money. This he was able to achieve, whilst maintaining his goal of not gambling on horse and dog racing. The heterogeneous nature of gambling behaviour is highlighted by this example, as is the need to maintain a collaborative approach with the client.

Reported triggers to gambling

The model of gambling underpinning treatment (see figure 2, page 52) proposed that conditioning experiences lead to a range of triggers cueing gambling related cognitions, arousal, and motor elements associated with the subjective experience of an urge to gamble. For those clients who completed them, the gambling urge diaries provided an opportunity to identify the actual links between situational triggers, urges to gamble, cognitions and behaviour. Common triggers were money being available; money problems, particularly inadequate funds to pay debts; alcohol use; and mood disturbance, particularly low mood and boredom. In addition, for slot machine gamblers, vicinity to slot machines was a trigger. For gamblers on horses and dogs, racing information on television and in papers was a trigger. These issues relate closely to those identified by Marlatt (1985) in his descriptive model of the relapse process. Triggers to urges to gamble were repetitive and predictable for each individual, supporting the hypothesis that a conditioning process was involved (Anderson and Brown 1984; Sharpe and Tarrier 1993). This proposed relationship is investigated further in the next part of the study. Stimulus control strategies served the purpose of disrupting repetitive patterns of gambling in response to regular triggers. They involved short-term avoidance of identified gambling related triggers, including such things as vicinity of slot machines, availability of money, and inactivity. Alternative pleasurable activities related both to the disruption of triggers to gambling related to boredom and inactivity, and the longer term changes in lifestyle proposed by Marlatt (1985). For some clients, such as clients 1 and 2, where there were very few other reported activities, the development of a range of activity was assisted through the use of a structured problem-solving approach.

Gambling related cognitions

Ladouceur and Walker (1996) have proposed a cognitive model of gambling in which the central feature is a misunderstanding by the gambler of the unpredictable nature of gambling related events. Associated with this model Sylvain et al (1997) have developed an effective treatment where the central element is the correction of these erroneous beliefs. This study can be criticised for also including a number of other treatment elements, which could confound support for the claimed cognitive mechanism of change. Ladouceur et al (1998), recognising this possible problem, have undertaken a single case experiment with replications where the treatment consisted solely of correction of erroneous beliefs.

The present treatment approach, developed before the publication of the Ladouceur and Walker (1996) chapter, focused upon a wider range of gambling related cognitions, and utilised a Beckian approach (Beck 1976, Beck et al 1979). Gambling urges diaries were utilised through treatment to identify automatic negative thoughts associated with urges to gamble, or to continue gambling once commenced. Cognitive restructuring then focused upon the evidence base for these thoughts, processing errors such as selective recall of past wins, or misinterpretation of emotional states. This resulted in the development of alternative perspectives which could be tested through behavioural experiments, such as “theoretical betting” where clients were encouraged to apply their skills to gambling, without actually betting. Specific issues associated with the commencement of gambling which were commonly addressed were: Likelihood of winning money; gambling being the way out of financial problems; cheering self up by gambling; being good at gambling; and not being able to stop themselves. Issues related to continuing gambling once started were: Having to win back the money that had been lost; luck changing; winning more if ahead; and anticipating feeling terrible as soon as they stopped gambling. For client 1, Gareth, the issue of interpersonal disputes was a focus of cognitive restructuring.

The approach to cognitive restructuring utilised in this study contrasted with the cognitive correction approach of Sylvain et al (1997), which focuses exclusively on the misperception of randomness, and appeared to the researcher to not include many of the key elements of cognitive therapy, such as collaborative empiricism, and a focus on process as well as content (Beck et al 1979; Padesky and Greenberger 1995). The issue of

randomness was not a direct focus of the intervention in this study, although incorporating this element may have been beneficial where gambling to win money, or win back money was a focus. It should be noted that the sequential addition of cognitive restructuring did not appear to be associated with either a change in gambling behaviour or a change in reported gambling urge strength.

Overview

The outcome of this part of the study indicates that the cognitive behavioural approach being evaluated was largely ineffective for a majority of clients, with drop-out prior to completion of treatment the outcome for six of the nine research clients. The single case experimental design chosen has been effective in enabling a range of questions to be answered, but a number of methodological problems have been highlighted. These relate to the limitations of an AB design with replications, and problems associated with unstable baselines. The researcher would argue that the “messiness” of client behaviour represents the reality of much clinical work. The rigorous and continuous measurement of the effect of treatment on those behaviours can, and has, provided an indication of both the effectiveness and limitations of the approach being investigated.

The analysis of the sequential addition of treatment elements has indicated a specific effect linked to the introduction of cue exposure for two of the clients, but no other indications. The proposed relationships between low mood and gambling, and between anxiety and gambling were only weakly supported in two clients.

A large amount of qualitative data has been collected, reported and discussed. Qualitative reports from clients indicate support for many aspects of the cognitive behavioural model proposed. The stereotypical nature of triggers to gambling urges was borne out by client reports. The belief, for many clients, that they could win money, together with a range of gambling related cognitions regarding lack of control, and the anticipated effect of gambling on emotional states links well to the arousal specific cognitions hypothesis. Arousal, excitement and/or switching off from problems on commencement of gambling were commonly reported. Ambivalence regarding gambling, with the ability to identify positive aspects of the behaviour in the context of significant negative impacts from it

were a feature for all clients. However, the rate of client drop-out from this and other studies indicates the possibility that key issues regarding gambling were not being addressed for many clients.

The anticipated path of the study following evidence of effectiveness at the level of the individual within the single case experimental design would have been a move to undertake a randomised controlled trial of the developed approach with a larger sample. However, the ineffectiveness of the approach with a majority of the clients led to reconsideration of this course. There are clear ethical problems with undertaking a study of an approach which has not been shown to be effective at the level of the individual.

Resulting from these concerns, a decision was taken to expand upon the planned qualitative analysis of clinical materials. The aim was to address issues regarding the adequacy of the model and treatment approach through an investigation of client reports with respect to problem gambling. Information from this study could then be utilised to enhance the treatment approach further. This approach was congruent with the researcher's initial selection of a single case experimental design. The single case experimental design does not assume that individual variability is unimportant (Hilliard 1993), but seeks to maximise learning from a case series.

A grounded theory method (Glaser and Strauss 1967; Strauss and Corbin 1990) identifying common themes regarding the experience of problems with gambling in treatment seeking gamblers was undertaken. As with the single case experimental design the approach to the grounded theory method taken was what Lincoln and Guba (2000) term a postpositivist approach. It was planned that the theoretical constructs developed within the grounded theory study would be sufficiently generalisable (Morse 1999) to enable the refinement of the cognitive behavioural model and treatment approach. This could then enhance treatment effectiveness with an increased number of clients. The next section outlines the grounded theory methodology and how it has been utilised.

SECTION 3
Grounded Theory Approach

INTRODUCTION

The first part of the study looked at the effectiveness of a cognitive behavioural approach to problem gambling through the use of a single case experimental design with replications. This involved the intensive study of nine individuals meeting research entry criteria, and the evaluation of outcome and process variables. The anticipated path of the study following evidence of the effectiveness of the treatment would have involved the use of a randomised controlled trial with a larger sample. This would have built on evidence of effect at the level of the individual in the form of replicated positive outcomes. However, the conclusion from the single case experimental design with replications that the treatment approach was broadly ineffective lead the researcher to reconsider the balance of the study. A qualitative analysis of client reports regarding gambling behaviour had been planned, but was revised and expanded to become the major part of the study. This reflected the researcher's view that the adequacy of the model underpinning the treatment approach used in this study required detailed analysis.

The cognitive-behavioural model utilised within the treatment outcome study lacks empirical validation, being largely derived from the generalisation of theoretical perspectives from other disorders and psychological research (Anderson and Brown 1984, Sharpe and Tarrier 1993, Ladouceur and Walker 1996). Many of the studies underpinning the cognitive behavioural models have utilised non-clinical samples (Dickerson et al 1992) leading to issues concerning the validity of the models so derived within clinical populations. In addition, few studies have directly investigated gamblers' own views of their behaviour. High levels of drop-out are reported in gambling treatment studies (Stewart and Brown 1988, Echeburua et al 1996, Sylvain et al 1997) including the one reported here. The possibility that the models and treatment approaches are failing to focus on issues of importance for clients, as evidenced by those drop-out rates, warrants broadening the range of perspectives available.

The second part of the study sought to extend those perspectives through the use of a Grounded Theory approach (Glaser and Strauss 1967, Strauss and Corbin 1990), utilising

initially material generated within the therapy outcome study. The purpose of the grounded theory approach was to develop a grounded theory of problem gambling from the reported experiences of gamblers. This will have functional value in enabling treatment approaches to be further refined in the light of these perspectives.

The appropriate starting point for sample selection for this purpose was identified as clinical materials generated within the treatment outcome study. The individuals concerned were treatment-seeking problem gamblers for whom much information was already available. Subsequently theoretical sampling procedures widened the range of individuals from whom information was gathered. This will be outlined and discussed in the following chapters.

The research questions for this part of the study are:

How do individuals seeking help for an identified gambling problem describe their gambling behaviour?

and

How does their perception of gambling change through the process of therapy?

This chapter will outline the grounded theory approach used and discuss its utilisation. Advantages and problems with the methodology will be identified, and approaches utilised to ensure rigour within the application of the methodology will be discussed.

METHODOLOGY

Outline of the method

The method utilised in this part of the study is that of grounded theory (Glaser and Strauss 1967, Strauss and Corbin 1990). This method utilises a set of systematic analytic procedures to develop and provisionally verify an inductively derived theory about a phenomenon (Strauss and Corbin 1990). The method involves the overlapping of the processes of gathering and analysing data, enabling the use of theoretical sampling of materials (Morse 1991). Data are analysed utilising an approach described as the constant comparative method (Glaser and Strauss 1967) through a series of structured coding strategies (Strauss and Corbin 1990). These strategies involve the movement from data to abstract conceptualisation, and back to data to verify those conceptualisations. There is an active searching for commonality and exceptions, with the resulting theory being dense and grounded in the data. The specific use of these strategies within this study will be detailed below.

Since its development in the area of sociology the grounded theory approach has been disseminated widely and utilised in a range of professional disciplines, such as education, nursing and psychology. This has resulted in the development of a range of forms of grounded theory methodology, all sharing the central focus on the constant comparative method, but varying in the specifics of methodology utilised (Strauss and Corbin 1998). In selecting a particular version of grounded theory, the researcher sought to select an explicit, well utilised method. This resulted in the use of the version of grounded theory outlined by Strauss and Corbin (1990).

Sample

The initial material for the analysis was clinical material from the nine clients involved in the treatment outcome study, together with material from one client who was subsequently withdrawn from the study. Descriptive data for the clients can be found in table 36. Further detailed information regarding each of the clients, and the treatment

they received, can be found in the single case experimental design results section. The main materials utilised were written responses to an open-ended questionnaire, the Life History Questionnaire (see appendix D), and transcripts of selected treatment sessions. The particular focus was on client reports of their gambling behaviour at the commencement of therapy, and at the end of therapy. The first treatment session involved clients telling their gambling stories, with a motivational interviewing approach (Miller and Rollnick 1991) being utilised. This approach included questions regarding positive and problematic aspects of gambling for the individual, and allowed for elaboration on the initial descriptions of gambling behaviour through detailed prompting and extensive use of reflection. This session was transcribed for all ten clients. Issues regarding the use of clinical sessions where a motivational interviewing approach was being taken will be discussed below. The final planned treatment session included a review of what had changed as a result of therapy. Additional sessions were transcribed and analysed as indicated by the earlier analysis. These were the second treatment session for client 10, and the last recorded treatment session for client 4. A total of sixteen sessions were analysed, together with eight Life History Questionnaires.

Once analysis of clinical material for the ten clients involved in the first part of the study had been completed, a further four informants were selected. These informants were selected for theoretical sampling reasons, to enable the developing theory to be compared to the experiences of treatment seeking gamblers at other times and in other settings. Two of the informants gambled exclusively on slot-machines, the other two gambled on multiple forms, but primarily in off-course bookmakers. The selected informants were from both NHS and voluntary sector services, and included one informant who had recently entered a residential treatment facility. All were ascertained to meet DSM IV criteria for pathological gambling (APA 1994), and completed the South Oaks Gambling Screen (Lesieur and Blume 1987). These measures ensured comparability with the original sample. The informant who was in the residential treatment facility had been a resident there for five weeks. The other informants had received no more than four treatment sessions before interview. Table 37 provides details of gambling behaviour amongst the individuals interviewed. Due regard was given to ethical issues related to

Table 36.
Descriptive information for clients 1-10 at entry to the research

Client	Age	Marital Status	Duration of Gambling / Problem Gambling (Years)	Gambling Preference(s)	Number of DSMIV Criteria Met at Research Entry	SOGS Score at Research Entry	Number of Gambling Activities (Once per week or more)
C1	32	Single	17 / 15	Horses; Slot Machines	7	12	3
C2	31	Married	18 / 12	Horses; Dogs	8	10	2
C3	34	Single	16 / 15	Dogs; Slot Machines	7	14	5
C4	24	Single	9 / 9	Slot Machines	6	11	2
C5	38	Cohabiting	20 / 10	Horses; Dogs; Slot Machines	6	11	4
C6	36	Separated	24 / 18	Horses; Dogs	6	17	5
C7	33	Divorced	19 / 17	Horses; Dogs	9	19	2
C8	27	Single	14 / 9	Horses; Dogs; Slot Machines	6	12	2
C9	34	Separated	18 / 4	Horses	7	14	3
C10	44	Single	29 / 15	Horses	6	10	2

Table 36 continued.

Client	Overall Treatment Outcome	Number of Treatment Sessions	Caseness on BSI at Research Entry	Previous Mental Health Contact	Forensic History
C1	Clinically Significant Change	14	Yes	Yes	None
C2	Clinically Significant Change Relapse in Follow-Up	14	Yes	Yes	None
C3	Clinically Significant Change Relapse in Follow-Up	16	No	No	None
C4	Dropped Out	11	Yes	No	Yes. Shoplifting and theft from cars
C5	Dropped Out	9	Yes	No	Yes. Unrelated to gambling
C6	Dropped Out	4	No	No	Yes. Theft from employers
C7	Dropped Out	3	Yes	No	Yes. Theft from employers
C8	Dropped Out	1	No	Yes	Yes. Unrelated to gambling
C9	Dropped Out	1	Yes	Yes	None
C10	Withdrew from treatment study	21	Yes	Yes	None

Table 37.
Descriptive information for clients 11-14, the additional informants

Client	Age	Duration of Gambling / Gambling Problems (Years)	Gambling Preference(s)	Number of Gambling Activities (Once per week or more)	SOGS Score	Treatment Sessions Prior to Interview
C11	35	15 / 12	Slot Machines	1	10	1 session NHS Psychotherapy Service
C12	28	15 / 5	Horses; Dogs; Sports Betting; Slot Machines; Casino Games	8	14	2 sessions NHS Psychotherapy Service
C13	24	10 / 8	Slot Machines	1	6	4 sessions Voluntary Sector Counselling
C14	39	23 / 7	Horse; Dogs; Slot Machines	2	14	5 weeks Voluntary Sector Residential Treatment

being interviewed regarding a potentially distressing subject. Services were asked to exclude any individual whom they considered could be harmed by such an interview. Informants received written information regarding the nature and purpose of the study. See Appendix G for a copy of the client information sheet and consent form.

Data Collection and Analysis

Data handling was undertaken utilising the Ethnograph data analysis software (Qualis Research 1998). Transcribing of data on the Life History Questionnaire was undertaken by the researcher. All audiotaped clinical sessions were transcribed by a secretary, with the transcription being checked against the audiotape by the researcher. This step ensured not only the accuracy of the transcription, but also that nuances of intonation, pauses, and interaction between the researcher and the clients could be noted.

Interviews with clinical informants were of 60 to 90 minutes duration, and semi-structured. The focus was on issues related to the informant's experience of gambling over the period leading up to and following the request for treatment. Specific issues focused upon were derived from the earlier analysis and included the emotional aspect of gambling, the experience of control and loss of control, the positive and negative impacts of gambling, and the process leading up to treatment seeking. The researcher utilised active listening skills within the interview to encourage informants to reflect upon and elaborate their answers. Interviews were audiotaped and transcribed by a secretary, with the researcher again checking the transcription against the audiotape.

The data was analysed following procedures outlined by Strauss and Corbin (1990). Initially clinical material from the clients who completed treatment, clients 1, 2, 3 and client 10, was analysed utilising line by line Open Coding of the clinical materials. This resulted in the production of descriptive codes representing units of meaning. Codes were then grouped into categories representing more abstract linking concepts, with repeated checking back to the data to ensure accuracy of the links. Open coding was then undertaken upon clinical materials from clients 4, 6 and 8. These clients were selected because their clinical presentations differed somewhat from clients 1, 2, 3, and 10.

Specifically, client 4 reported slot machine gambling only, and a pattern of no gambling during baseline. Client 6 was reported to have a high degree of ambivalence regarding engagement with treatment initially, and client 8 had significant mental health problems, and had dropped out from treatment following one session. Open coding revealed many similar concepts to those reported by clients 1, 2, 3 and 10, but also some clear differences. As part of open coding the properties of the categories being developed were hypothesised, and then checked against data, through the location of specific instances of data on dimensions relating to those properties.

Following completion of open coding for the seven clients identified above, Axial Coding was undertaken. This involved working with the categories generated through open coding, utilising the Paradigm Model outlined by Strauss and Corbin (1990). This involves the linking of concepts as follows:

(A) CAUSAL CONDITIONS >>> (B) PHENOMENON >>> (C) CONTEXT >>>
(D) INTERVENING CONDITIONS >>> (E) ACTION/INTERACTION STRATEGIES
>>> (F) CONSEQUENCES

Definitions of each of these terms and an example of the paradigm model for one of the central categories are shown in table 38. Whereas open coding broke the data down into multiple codes and categories, axial coding began to make connections between categories and sub-categories. Working with the paradigm model enabled the specification of the conditions and context in which phenomena occur, the range of actions which individuals were taking to manage the phenomena, and the consequences of those actions. As shown in table 38, for the Control category, the paradigm model enabled the relationships between varied triggers, the experience of control and loss of control, and the application of strategies to manage triggers to be conceptualised in a way which represented the range of experiences being reported. This was also the case for the other main categories, and was an important stage in the process of moving the analysis towards a grounded theory (Strauss and Corbin 1990).

Table 38.

Definition of terms and an example of the paradigm model (Strauss and Corbin 1990)

Term	Definition	Example for the CONTROL Category
Causal Conditions	Events, incidents, happenings that lead to the occurrence or development of a phenomena	Triggers to Gambling, with the properties: Location: Internal - External Emotional Force: Strong - Weak Number of Triggers: Many - None
Phenomenon	The central idea, event, happening, incident about which a set of actions or interactions are directed at managing, handling, or to which a set of actions is related	Control of Gambling, with the properties: Power: Weak - Strong Stability: Unstable - Stable Involvement: Embroiled - Detached Dependence: Other - Self
Context	The specific set of properties that pertain to a phenomenon; that is, the locations of events or incidents pertaining to a phenomenon along a dimensional range	Each incident of control of gambling is placed along the dimensions of Power, Stability, Involvement and Dependence noted above.
Intervening Conditions	The structural conditions bearing on action/interaction strategies that pertain to the phenomenon. They facilitate or constrain the strategies taken within a specific context	Alcohol (substance) use Indecision Presence of other interests Social Support
Action/interaction	Strategies devised to manage, handle, carry out, respond to a phenomenon under a specific set of perceived conditions	Avoids contact with triggers to gambling Stops and thinks about gambling before acting Uses support of family and friends Willpower, just trying to stop, with an absence of specific strategies
Consequences	Outcomes or results of action and interaction	Not gambling / gambling in a limited way / gambling in an uncontrolled manner Perception of control Emotional consequences

Utilising the paradigm model the central categories being developed from the data were elaborated, and then checked against the data. Specific instances for each client were noted. This enabled the properties of the identified categories to be clarified, and the dimensional location of data indicative of the categories to be noted. Identification of variation across individuals with regard to each of the central categories was noted, and recorded in the form of memos and diagrams. The various forms of memos and diagrams utilised in the analysis are outlined below.

As part of axial coding, data from clients 5, 7 and 9 were analysed, providing a check on the applicability of the developing categories to clients whose views had not been included in their initial development. Both axial coding and line by line open coding was undertaken on these clients' data, providing further elaboration of the central categories and examples of the paradigm model for each client.

At this stage the first additional interview was undertaken, with a selected client from the Sheffield gambling treatment service. Interview data from this individual, client 11 was utilised to check against the way in which the paradigm model was being developed regarding the central categories. Following the analysis of this interview, Selective Coding was commenced.

Selective coding (Strauss and Corbin 1990) involved the selection of a core category, and the systematic relating of the other categories to that category. This process involved reviewing the memos and diagrams generated in earlier stages of the analysis, conceptualising the central processes, and validating those processes, including the relationships between the core category and other categories, against the data available from clients 1-11.

Interviews were then undertaken with three further clients, one from Sheffield and two from other treatment sites, for theoretical sampling reasons (Strauss and Corbin 1990; Morse 1991). See table 37 for informant details. The specific purpose of these interviews was to identify the generalisability (Morse 1999), in qualitative terms, of the developing

theory. Efforts were made to interview treatment seeking gamblers who were both similar to clients 1-11, and different in theoretically relevant ways. Specifically, C12 took part in multiple forms of gambling, C13 gambled primarily on slot machines, and had been in treatment with a voluntary counselling service, and C14 gambled primarily in off-course bookmakers and was in treatment within a residential treatment service.

The final product of selective coding was the model outlined in the results section. This model sought to answer the research questions outlined at the beginning of this section, and to be grounded in the data.

Memos and Diagrams

A number of forms of memos and diagrams were utilised within the analysis. These were the code book, theoretical memos and logic diagrams. The code book facility in Ethnograph (Qualis Research 1998) stored the products of open coding in the form of multiple codes, with attached definitions. These codes were grouped and regrouped as the analysis progressed utilising the code tree facility in Ethnograph. Both the code book and code tree were printed off periodically, providing a record of changes in perception regarding linkage between codes and categories. See Appendix H for an example of the code book and code tree.

Theoretical memos were produced at each stage of the analysis. These developed in complexity and focus as the analysis progressed, following the stages outlined above, and were related to the analysis in one of three ways:

- Project memos summarised general elements from the analysis, developed concepts and contained the products of higher level theory development.
- File memos related to the contents of a specific file, commonly identifying ways in which particular files evidenced similarities and differences in presentation between clients, and within the same client over time.
- Text memos related to specific instances of data relating to the stage of the analysis, particularly the process of checking developing ideas against actual data.

Logic diagrams (Strauss and Corbin 1990) were utilised from the commencement of axial coding onwards to lay out the hypothetical connections between different aspects of the developing theory. Appendix I provides examples of Project, File and Text memos.

Discussion of the Method

The grounded theory method utilised in this study is a theory generating approach to the analysis of reported client experiences. The form of grounded theory utilised constitutes a postpositivist approach (Pidgeon and Henwood 1997; Lincoln and Guba 2000) to the research endeavour. This represents one of a number of different approaches to qualitative social sciences research which can be taken (Silverman 2000; Lincoln and Guba 2000). In this section the assumptions underpinning qualitative research methods and the grounded theory approach specifically will be discussed briefly. Aspects which will be covered are assumptions regarding the nature of social science, the differing forms of grounded theory, the different ways in which speech can be used as a source of data, analytic procedures, issues of validity and reliability, and the product of the grounded theory analysis.

The nature of social science

Attempts to distinguish quantitative and qualitative methods in the social sciences are argued by Bryman (1988) to centre on issues of epistemology or technique. The first view, exemplified by attempts by Lincoln and Guba (2000) to differentiate research paradigms, argues that qualitative and quantitative research perspectives can be differentiated in terms of their differing views regarding the nature of social science. Utilising the language of Kuhn (1970), Lincoln and Guba (2000) argue that the differing views regarding the nature of knowledge, knowledge accumulation, values and ethics, together with issues of action and control can be understood to differentiate positivism and postpositivism from alternative paradigms such as constructivism. In contrast a technical differentiation of methods views the choice of qualitative or quantitative approaches as one determined by the research question, and the ability of the method to answer that question (Bryman 1988). An example of this perspective is that of Silverman (2000), who argues that objectivity should be the aim of all social science, and that “it is sensible to make pragmatic choices between research methodologies according to your research problem.” (Silverman 2000 p.12).

The grounded theory approach is interesting in being a qualitative method which can be utilised both from a postpositivist and a constructivist perspective (Pidgeon and Henwood 1997). The approach aims to develop and provisionally verify theories grounded in data (Glaser and Strauss 1967; Strauss and Corbin 1990). Those theories can be substantive theories relevant to a particular area of study, or higher order theories that have more general applicability (Strauss and Corbin 1990). This searching after theoretical models can be understood as taking a postpositivist perspective in assuming that the nature of reality can at least be partially apprehended (Annells 1996; Hall and Callery 2001), and that the theories generated through the grounded theory method are falsifiable through further testing (Annells 1996). In contrast recent authors have argued that grounded theory can be utilised within a constructivist perspective (Annells 1996; Pidgeon and Henwood 1997).

A constructivist approach to grounded theory would argue that it is knowledge which defines how objects in the world are constructed (Pidgeon and Henwood 1997). In this view the proper focus of a grounded theory study would be on locally defined and specific constructed realities. Knowledge of these would be developed through efforts to understand as accurately as possible the perspectives of the local actors (Annells 1996). There would be recognition of the extent to which the researcher affects the interview or observational context (Hall and Callery 2001). That is, the product of the research is produced rather than found.

In selecting a postpositivist approach to the grounded theory method, the researcher was making a pragmatic choice regarding methods based upon a consistent view of the purpose of the research process (Silverman 2000). This view was that the product of the study should, as far as possible, be generalisable (Morse 1999), and able to be utilised in the further development of therapy for individuals experiencing difficulties with gambling. The postpositivist perspective approach to grounded theory was also consistent with the earlier single case experimental design. The assumption was that there would be common aspects of the experience of problem gambling that could be developed into a

theory. That theory could then be open to further testing, and would enable the further development of treatment.

The nature of speech

The grounded theory approach utilised in this part of the study used transcribed speech as the main source of data for analysis. This speech derived from clinical sessions in which the researcher and a client were interacting, and interviews within which other informants were asked to describe and discuss their gambling behaviour. The selected clinical sessions were those where a motivational interviewing approach was being taken, and the last treatment session for those clients who completed therapy. The relevance of the selection related to the nature of the motivational interviewing style, which specifically seeks to engage clients in exploring their ambivalence regarding addictive behaviours (Miller and Rollnick 1990). As a result the therapist style in those sessions was a reflective and eliciting one, which encouraged the client to discuss in detail his gambling behaviour and the benefits and problems associated with the behaviour. No attempt was made within those sessions to frame this experience within a cognitive behavioural model. This style was particularly suited to accessing considered views and emotional material appropriate to the grounded theory analysis. In addition the confidential and collaborative nature of the therapeutic relationship meant that there was some purpose to risking such in-depth narrative for the client.

This raises the question of how that speech was approached. Verbal reports can be construed in a number of different ways, these relating to what Silverman (2001) terms positivism, emotionalism and constructionism. From a positivist position speech may be considered factual description, with efforts being made to increase the reliability of findings through standardising the interview questions used. In emotionalism 'depth' is sought, with the focus being on authenticity and the emotional content of the reports. Thirdly within a constructionist position the interaction itself is the focus, providing a source of information regarding patterns of speech and interaction. Speech may also be considered to represent efforts by the individuals concerned to represent themselves within the norms of the culture within which they are set, and therefore enable the

researcher to access some of those cultural rules (Silverman 2001). Each of these different means of interpretation makes assumptions about the nature of the interaction and therefore lead to different styles of analysis (Silverman 2001).

Within this study, speech was assumed to constitute a description of experience. This involved descriptions of actions, thoughts and emotional states. It was assumed that these would necessarily be distorted by the retrospective nature of the events being described, but that respondents would seek to describe to the best of their ability the nature of their experiences. Client explanations of actions were treated as experiences rather than causative explanations. That is, the explanations were considered part of the data, representing thoughts the respondents had regarding their behaviour, and analysed in the same way as other reported thoughts. No assumption was made of a match between verbalised explanations of actions, and actual causative variables. In the decision to treat speech in this way, the researcher chose a position which matches both the theoretical framework of cognitive behavioural psychotherapy (Hawton, Salkovskis, Kirk and Clark 1989), and the views of Strauss and Corbin (1990; 1998).

Analytic procedures

The grounded theory method has been contrasted with other qualitative approaches in its emphasis on both theory development and verification (Strauss and Corbin 1998). This is a result of the constant comparative method, whereby theoretical constructs are developed through analysis of data, elaborated and then provisionally verified through a return to that data, and the collection of theoretically sampled new data. This claim to theory verification has resulted in a reported reluctance among some grounded theory researchers to accept that their theoretical positions may benefit from further empirical testing following development (Miller and Fredericks 1999). However, the principal proponents of grounded theory (Glaser and Strauss 1967; Glaser 1978; Strauss and Corbin 1990; 1998) have not excluded the subsequent verification of hypotheses, utilising phrases such as “provisionally verified” (Strauss and Corbin 1990 p. 23), and “strive towards verification” (Strauss and Corbin 1998 p. 161).

The method utilised in this study follows the procedures of grounded theory, as elaborated by Strauss and Corbin (1990). The method was selected because the research questions being addressed in this part of the study related to the reported experiences of the group being studied. The requirements of the constant comparative method ensure that the developing conceptualisation is subject to repeated checking against data, and reduces the threat to validity resulting from a lone researcher “finding” theories which match his or her preconceptions (Brink 1991). Theoretical sampling, gathering further data until saturation is achieved, and the seeking for negative cases supports the rigour of this process (Strauss and Corbin 1990; Silverman 2000). It is acknowledged that the theory generated through this method is not found, but made, and that, despite efforts to describe in detail the analytic procedures involved, much of the work undertaken is not open to scrutiny. The researcher has been aware of his own theoretical preconceptions in analysing the data, and has attempted to use, rather than disregard these, to enhance his theoretical sensitivity (Strauss and Corbin 1990), and the extent to which the products of the analysis are grounded in the data. An outline of the researcher’s theoretical orientation and personal experience with respect to gambling is provided in the Discussion section, together with a discussion of how theoretical preconceptions were managed within the study.

Issues of validity and reliability

Issues of validity are central to the constant comparative method within the grounded theory study. As noted above, the repeated checking of developing conceptualisations against data, with the requirement to incorporate all data into the analytic scheme (Silverman 2000) encourages efforts at the falsification of the developing theory. Theoretical sampling has been used, involving the interviewing of clients from outside of the researcher's service following development of selective coding (Strauss and Corbin 1990). This seeking after the deviant case enhances the validity of the findings (Silverman 2000). Ultimately however, it is the rigour with which the researcher has approached the analysis that will determine the validity of these findings (Stiles 1993).

Reliability in qualitative studies relates to whether the same researcher analysing the same material at a later period would categorise it in a similar manner, and also whether a different analyst would generate the same categories (Strauss and Corbin 1990; Silverman 2001). The researcher has been in the favourable position of having had time to revisit his data, after a period of several months. This has been an interesting test of reliability, with the analytic output from the treatment-seeking client data varying only slightly as a result of this revisiting. The text examples chosen to illustrate the theory have however altered in the light of this process. It was not possible to have a further analyst examine the data due to resource constraints.

Product of the analysis

The product of qualitative studies can reach varied levels of explanatory power. They can produce simple description, concepts, theoretical integration of several concepts applied to limited fields, or more general theories of social organisation (Strauss and Corbin 1998; Silverman 2000). Grounded theory studies seek to move beyond description and the labelling of concepts to the integration of concepts into conceptually dense theoretical explanations, either in the form of substantive theory applicable to specific situations, or higher order general theories (Strauss and Corbin 1990). In doing so the grounded theory method seeks to identify patterns of action and interaction between and among social units. The aim of the present study was to develop a substantive theory related to the specific situation of subjective loss of control of gambling behaviour. The extent to which this theory could have wider utility is discussed in Section 5 of the thesis.

There has been some discussion regarding the status of theory derived through the grounded theory approach. Miller and Fredericks (1999) consider that grounded theory is broadly accommodationist in providing explanations for phenomena, rather than making and testing predictions. This perspective is contested by Strauss and Corbin (1998), who identify the constant comparative method as a means by which earlier theoretical propositions can be falsified by subsequent data. The researcher considers that grounded theory can be both accommodationist and predictive. That is, although the product of the analysis is provisionally verified by a process of repeatedly returning to the data, and

through theoretical sampling of additional data, it can produce theoretical constructs which are themselves amenable to further testing. Section 4 of the thesis reports upon the testing of the grounded theory produced within this section through a process of analysis of data from a group of contrasting informants.

RESULTS

The analysis resulted in the generation of three main categories. These were related to the issues of emotion, control and the costs of gambling. Within selective coding the Core Category was identified as that of gambling as emotion management. This concept enabled the reported experiences of the treatment seeking gamblers to be understood as resulting from gambling becoming their main emotion management strategy.

In this section the nature of gambling as emotion management will be outlined, and the relationships between this function, and the various aspects of the costs and control of gambling will be developed. The process leading to treatment seeking will be outlined, and the changes resulting from treatment will be proposed. Emphasis will be placed on factors associated with variability between individuals. Throughout the text examples of client statements related to the concepts will be utilised to illustrate the theory. These examples have primarily been selected as being representative of the sample, and therefore extreme examples have been avoided. Where a continuum of experience is identified this is illustrated by two contrasting text examples relating to different points on the continuum. Client statements are labelled by client number, treatment session or interview number, and line numbers from Ethnograph (Qualis 1998). Statements preceded by T: are those made by the researcher.

Gambling as emotion management

Central to the experience of gambling for all the informants was the emotional nature of gambling. Gambling had served, or did serve the purpose of altering their emotional states. This emotion-altering effect was used purposefully by the gamblers to manage unsatisfactory emotional states, however they had come about. Three types of emotion altering effects were identified. These were arousal, shutting off, and achievement.

Arousal: Various described as the buzz, excitement or enjoyment of gambling, the arousal inducing effect varied in intensity across individuals, but where reported was important to their experience of gambling:

It's the buzz of picking out the winners. I used to always back favourites. It's just the buzz of the race itself, the build up to the race, the actual race. And the way that racing is structured, as soon as one race is over within five, six, seven, eight minutes there's another race (C7 T1 205-212)

Shutting off: The response to gambling being described as shutting off other, unpleasant, emotional states, or gambling having the effect of switching off from worrying concerns.

And in the last couple of years, the main times when I've gone and lost money in the bandits is when I've felt right down or something's gone wrong like. If I've felt right bad about something, like something bad has happened to me, or something like that. I've gone into the bandits to try and make myself feel a bit better for that short period. (C4 T1 483-493)

Achievement: Experienced as an emotion, and linked to winning and the perception of being an expert at gambling, irrespective of outcome.

A lot of bandits you can gamble with rhythm, and, some old bandits you used to be able to do it with rhythm, count to two and press gamble and that, but with the new ones it's pot luck. But I always used to be thinking at the back of my mind that there's skill involved Just made me feel as though I were good at something. (C4 T1 234-265)

Individual gamblers reported one or more of the above emotion management functions of gambling, and these related to the situations which would commonly trigger gambling behaviour for each individual. For gamblers who experienced high levels of arousal during gambling, no particular emotional disturbance was reported to precede gambling. Often, the behaviour was reported as being part of their routine, and they would feel uncomfortable only when attempting to control the behaviour. Then boredom and "missing out" would become emotional triggers to the behaviour. Individual gamblers varied in the intensity of the emotional arousal they experienced during gambling, and this related to their perception of control of the behaviour. The greater the intensity of the arousal reported, the greater the intensity of their discomfort when attempting to control the behaviour, and the weaker their perceived control.

Once gambling had commenced, even if reported to have been in response to shutting off negative emotional states, arousal was commonly associated with thinking patterns leading to the continuation of gambling. Intense engagement with the act of gambling, and the arousal associated with it would be linked to thoughts regarding winning. These would take the form of thoughts about winning more, or regaining losses. In either case gambling behaviour was likely to continue when the individual evidenced a low tolerance of emotional distress, and / or a perception of weak control.

T: Is that fair to say that there is that continuous buzz that you get which again is sort of part of the attraction of it.

C3: Yes I'd say so because with the dogs like if I win on one race then I guess it sets me off for the next race and thinking that I'm, like, starting to hit a winning streak. And with a dog race if I lose on it I'd think the next race, I'm gong to -

T: Okay, so when you win you, sort of have got more money, do you increase your stakes to the next race if that's the case or -

C3: Normally I keep it the same but say I win on two or three races I normally increase it then.

T: And what are you telling yourself if you are losing, what it is you are thinking then you said.

C3: That maybe the next race will be the race where I start winning again. (C3 T1 630-657)

Where high levels of arousal were present, a period of gambling would often not be limited to a single day. Whether the individual won or lost, their focus would be on maintaining engagement with gambling, with any temporary reversal in mood being followed by actions linked to gaining funds for and planning the next period of gambling. In these instances, periods of high arousal levels were reported as being of long duration, ending only when all sources of money had been exhausted.

Once I've started within actually a gaming session for example, I just, there's absolutely no, I can't say absolutely no control, there's very very little control. It's very very difficult for me to stop. And then when I've lost that source of money it's a question of normally going and finding some more. Attempting to win back what I've generally lost. Sometimes I win a lot. It's probably easier for me to stop having won than it is when I've lost. Unless when I've, as I just have, been completely wiped out. And then I have to stop. (C12 Int1 32-47)

Some individuals reported arousal associated with gambling as no longer present, or tempered by accompanying negative emotional experiences whilst gambling. In these cases the loss of the buzz, or the introduction of negative emotional states was associated with reasons for seeking treatment. The costs of gambling were no longer overwhelmed by the emotional arousal associated with it.

Similarly the emotional response from it became less and less from, you know, whether I was sad, happy or something, I was on a plane. From the moment I got, I would feel excited before I go on the fruit machines but I'm, I know I feel excited when I go on the fruit machines but really whether losing or winning is nothing. I just have. I think I must have that emotional response inside of me, but really there is no, I don't remember feeling anything. I just, I might feel relieved if I win money but I would just be on an emotional plane. (C13 Int1 1580-1594)

Gamblers who reported using the behaviour to shut off from emotional states were characterised by poor tolerance of emotional discomfort, and generally weak perceptions of behavioural control. Emotion management would commonly commence with the reported experience of a situational trigger, such as an interpersonal dispute or stressful situation. These would then result in negative emotional states of varying intensity, and duration, and result in the commencement of gambling which would modify the mood state. Whilst gambling, these individuals would commonly report focusing on the process of gambling, and switching off from other concerns. Individuals who reported this pattern most often utilised slot machines as their preferred form of gambling.

Shutting off was reported by all individuals in the context of attempted control of gambling behaviour. Commonly, the treatment seeking gamblers experienced behavioural control of gambling as unstable. That is, even when not gambling, they anticipated being

unable to maintain control in the face of negative emotional triggers. Emotion management by gambling was then utilised initially to shut off from the emotional trigger, before a resumption of their more usual pattern of being primarily linked to arousal. The triggered nature of gambling behaviour will be discussed further below in the control section.

I'll sit in the house on my own. Sit in the house on my own and I can be saying like I'm not having a bet like that day and I'll be looking at the horse racing paper and then I start to feel like tensed up inside. I fancy something. "No. Don't have one, go on, yeah, just have a tenner." But I never take just a tenner with me, I always take a bit over. I think, "Well, I'll take my money - I'll not touch it, I'll not touch that. I'll just have tenner on or five or something". Then that loses and I think back this one to try and get that one back, do you know what I mean, then I've lost all that (C2 T1 528-543)

The intensity and duration of the negative emotional states required before commencement of gambling varied across individual gamblers. Factors involved in this variation were availability of other emotion modifying strategies, tolerance of negative emotions, and beliefs regarding control. All the treatment seeking gamblers were characterised by the limited range of emotion modifying strategies they were utilising. The most commonly reported was alcohol, which was strongly linked to gambling for many of them. Social activities with friends and family were reported by some individuals, but commonly, the range of strategies available was very limited. This was partially explained by reported financial difficulties resulting from gambling. Tolerance of negative emotions varied across the informants, with low tolerance meaning that short periods of emotional distress resulted in gambling. Beliefs regarding control interacted with this tolerance of emotional distress, with those individuals having the strongest sense of being unable to control gambling being less likely to tolerate negative emotional states for long periods before commencement of gambling.

At the moment, because I have just lost so much recently and I have gambled so much that it is still, it's still a live thing even though I'm sick to the pit of my stomach about what I've lost. You know, I did have a thought earlier today about gambling. I've got £4 to my name, and I've got no access to any more. And so I know, potentially if I did have money, I'd gamble. So until I can get this constant strong urge, which is you know, until I can get rid of that, then, for me, I can't trust myself with money. (C12 Int1 683-698)

The main reason I go in the bookies is because I'm bored. I have got nothing better to do, and that. And now when you sit back and look at it, there is plenty you can do. You know, that is something that you learn, coming here. The day goes so quick here and yet you think to yourself "I spent all day in the bookies before, doing nothing, and yet I can do so many things in one day if I want to". (C14 Int1 2087-2098)

By the point of treatment seeking, the emotional distress which the individual was using gambling to manage, was often related to the consequences of gambling itself, leading to a vicious circle which maintained the behaviour.

I mean, the last two weeks is probably a really good case study in terms of that. I have lost a lot, I've even won a bit, and then a day or two I've gone back and done it, because I have been feeling sick and as soon as I start gambling again that goes away, until I've then lost again generally. So in a way a way of dealing with loss is to go back, attempt to win it back. (C12 Int1 307-317)

Gamblers for whom achievement was reported as being an important aspect of the behaviour overlapped extensively with the other two emotion management aspects outlined above, particularly the arousal aspect. They were characterised by a greater focus on issues of expertness and skill, with efforts being made to maximise the frequency of the experience of winning. This was commonly achieved by "following the market", and selecting favourites or second favourites in off-course bookmakers. Triggers to gambling for these individuals would commonly be associated with financial pressures, gambling related information, and emotional distress associated with the possibility of missing out. There was wide variation across individuals where achievement was the main focus regarding tolerance of negative emotional states, and this was evidenced in the periods between episodes of gambling. Higher levels of tolerance were associated with longer periods between gambling. Low and high tolerance of negative emotional states respectively are illustrated by the following contrasting examples.

C1: I could be sat at work sometimes like, and just the slightest little thing. And it might be two O'clock, three O'clock, and I think well I finish at quarter past four I'll go for a bet or, I'll go in the pub and have a drink and have a bet. It's just slightest little thing.

T: What do you mean, the slightest little thing will set you off that way?

C1: Owt at work, owt where, you know, when you have a bad day with other people (C1 T1 570-588)

Yeah, yeah. Because in previous seasons I have been £3,000 in front and still could not stop and I would lose £3,000 in two or three days. And the irony is, you pass up, you try and turn yourself into a machine whereby you are very very selective and you minimise the risk. So in other words you are betting like a professional gambler, but this presupposes you don't have insomnia or depression or de de, this that or the other. Which machines don't have but you do. So eventually you are going to get miserable and you then say I've missed six certs. here, and you just pop and back any old thing after all that. (C10 T2 1226-1242)

Achievement was associated with perceived expertness being reported as important to the individual. This manifested itself in the form of beliefs regarding winning, and was associated with higher levels of persistence at gambling, once a period of gambling had commenced. This persistence could last over many days, and take the form of a vicious circle, whereby money is borrowed to gamble to try to win back previous losses. All the gamblers who reported criminal behaviour to fund gambling reported achievement as an emotion management aspect of their behaviour.

I was always one in the betting shops for saying "I'm a big punter, look at me, I have £1500 on every race" and I'd look down on people having 20p a race on. They could go in there and spend £5 in an afternoon, spend an afternoon in there and have 20p a race on. But for them it's a great afternoons entertainment, but for me I would never consider doing that. I used to look down and think "What are you doing?". Like whose the mug, you can only win like a quid a race, I can win like that in a second, it's, but that's the way I acted when I was in there. (C7 T1 430-445)

The sense of achievement experienced on having won at the end of a period of gambling was intense and long lasting for many of the gamblers. Despite commonly being under financial stress, any gains were commonly reported to be put aside to utilise to win more at a further session of gambling. Indeed, the combination of financial stress and access to funds was strongly associated with the commencement or continuation of gambling for these individuals.

Achievement was associated with emotional distress once all available sources of money had been exhausted, and effectively that period of gambling was over. This experience was commonly intense and of long duration. For several of the gamblers, the emotional distress was associated with consideration of suicide.

It's just, desperately depressed, I just get right fed up, right bored with it. I've said before, I've thought about suicide and I've thought, you know, I've said before, crushed tablets. You know, different times and that, it gets right bad, gets right down. (C2 T1 560-567)

Table 39 summarises aspects of the gambling as emotion management paradigm.

Table 39.
The gambling as emotion management paradigm

Causal Conditions	Situation experienced as unsatisfactory, with the properties: Duration: Short - Long Solubility: Insoluble - Controllable
Phenomenon	Emotional States, with the properties: Valence: Positive - Negative Duration: Short - Long Intensity: Weak - Strong
Context	Each incident of gambling to manage emotional states is placed along the dimensions of Valence, Duration and Intensity noted above.
Intervening Conditions	Tolerance of negative emotional states Availability of other emotion changing strategies Beliefs regarding winning Beliefs regarding control
Action/Interaction	Commences gambling on chosen form
Consequences	Alteration of emotional states, with the properties: Valence: Positive - Negative Duration: Short - Long Intensity: Weak - Strong

Costs associated with gambling

Repeated gambling was reported to result in a range of costs for the treatment seeking gamblers. These were categorised as financial, relationship and emotional costs. In terms of the decision to seek treatment, emotional costs were the most important.

Financial costs: All the gamblers reported financial costs resulting from gambling. These were in the form of financial difficulties and debts, with wide variation across individuals as to the extent of these costs. A variety of strategies were utilised to manage the financial costs of gambling, including further gambling, attempts at controlling the behaviour, borrowing money, lying and criminal behaviour. The selection of strategies varied according to access to money, beliefs regarding winning, the strength of the emotion altering effect of gambling, and opportunities to steal. In the context of positive expectations regarding winning, and strong emotion altering effects of gambling, further gambling would be reported as an attempt to manage the financial costs of gambling. In these instances all available sources of money would be accessed, often involving defaulting on debts and repeated lying. Criminal behaviour was resorted to by a number of individuals. This would result in significant levels of debt and effects on relationships.

It's just like getting out of control. I just. Like I said, I didn't say it last time but I should have because I felt ashamed of it - I'm spending her money as well which I didn't admit to last time, but I've been thinking about it. And every bit of money that we've got spare it's going, do you know what I mean, it's getting spent. (C2 T1 225-230)

T: You mentioned earlier about the sort of sorting your money problems out by gambling. Does that continue to be something that's around for you.

C6: Sometimes I could come into money, I could get £400, and I think, oh yes, so and so, so and so, so and so, and I look and it's £1,000 that I owe. Well instead of paying £400 off and waiting until I get more money I go and try and win another £600 with the £400.

T: So it would be uncomfortable not to try to win the other money in that instance is that what you are saying, that just paying £400 off is just not good for you, might feel uncomfortable.

C6: Yes, yes, because I feel six hundred or a thousand it's the same, I still owe money out, I've still got people pressuring me for it. I might as well try and win it. That's how I always look at it. (C6 T1 250-275)

In the context of concerns regarding financial probity, efforts at controlling the behaviour were reported as resulting from awareness of financial costs. Failure of these efforts was then associated with emotional disturbance.

T: About taking your own life. Does that feeling come at other times as well?

C11: I think it's a lot stronger afterwards.

T: Right. So what's the relationship there do you think?

C11: I think it's because whenever I've gambled and I've lost all my money and I've had then, knowing full well that I've had debts and what have you to pay. And I've not got round to paying them. Also I'm leaving myself without food and things that you normally get in life I've gone without, you know, I've suffered because of it. And it just felt to me that I just hadn't got a life. (C11 Int1 381-401)

Relationship costs: Repeated uncontrolled gambling was reported to have significant negative impacts on relationships. For some this was as a direct result of the financial costs associated with gambling. For others gambling behaviour was reported to involve repeated selfish acts which put gambling ahead of their relationships in importance, and had a cumulative effect on those relationships.

For those individuals still in partnerships, two strategies were identified which sought to reduce relationship costs. These were efforts at control of gambling behaviour and lying. The use of these strategies was determined by a number of factors, including the degree of tolerance and support from the partner, their views of problem gambling, and the client's

own views regarding problem gambling. Efforts at control were reported to often have failed, and be replaced by periods of lying extensively to cover up the behaviour and its financial consequences. The subsequent harm to the relationship was associated with emotional costs to the extent that the individual placed importance on their relationships. The contrasts between individuals regarding the emotional costs associated with relationship costs were marked.

Lying a lot. Lying a lot as well. When you're borrowing money and you're having to pay it back from someone else, to borrow from someone else. But lying a lot, like to my girlfriend, when she'll say "What's going off". I say "Nowt, nowt. Just leave it to me." She says "How much do you owe?" I say "No, just let me see to it". And I'm lying all the time, like it's sick. (C2 T1 613-623)

T: How would your life be better if it did (change gambling behaviour)?

C7: Be financially better off. My relationships with other people would be a lot better. I'd have more self respect than I've got at the moment. But having said that I'm not one for pulling myself down all the time and getting into fits of depression and things like that. I always know whatever happens, I'll always bounce back because I've got confidence in my ability to do things. I always come back and do it, which I always have done for the last 12-18 years now. I can always land on my feet and that's not a concern, I suppose I'm more concerned about the damage I do to other people now. I wouldn't have dreamed of having my own place 12 months ago, six months ago, even. But the situation I got myself into, that brought itself on me, upon myself. I mean NAME had had enough, and she made it quite clear that if I wasn't out she'd dump all my stuff on the garden, and so obviously I went to the Council and got myself a place. And there again I dropped on my feet, it's a smashing little flat and it's ideal. (C7 T1 919-949)

Relationship costs following from gambling included a number of other relationships. There was damage to relationships with friends and family resulting from borrowing from and lying to them, damage to relationships with children, damage to relationships with employers, and effects on relationships with society in the form of the criminal justice

system. For some individuals these were significant costs associated with emotional costs, but for others they seemed to have little impact.

I mean when he turned round and said “You were at dogs last night”, I mean he’s my best mate like, but to be honest with you I denied it, but he said “Would you swear on my kids life”, and I felt so guilty and stupid and low, you know what I mean. (C1 T1 463-471)

You know there’s one important thing that I left out, probably the most important reason I want to stop, my children. You know. I want my children to look up to me and they can’t do that now. You know. Their mother could tell them what I’m like, and it wouldn’t paint a pretty picture you know. I want them to grow up and I want them to be proud of me and I want to be able to help them when I can, you know, like a father does. (C6 T1 508-551)

C6: Well I got so bad with it, in that I got into trouble with the law. And I want to get it under control so that it doesn’t happen again. I don’t want to go to prison, and I was lucky not to last time. So I just want to get it back under control again, hopefully this will sort it.

T: So one of your main reasons is because of the trouble with the law again, and the threat of jail affecting you.

C6: Well yeah, yeah, that would be the main reason obviously, you know, my life’s not getting nowhere while I’m gambling, but that would be the main reason, there are other reasons obviously, other things. But I’m not going to get them whilst I am gambling my money away. (C6 T1 104-123)

Emotional costs: The emotional costs of gambling were wide-ranging, and appeared to be the stimulus for attempts at control and treatment seeking. They resulted from financial costs, relationship costs, and the experience of loss of control. Emotional costs reported including feeling depressed, guilty or selfish. They included getting angry, losing confidence and feeling ill. Commonly these emotional costs followed periods of gambling, and were intense and of long duration. For some individuals the feelings permeated all

aspects of their lives, such that they were overwhelmed by the effects of gambling, whilst feeling unable to disengage from it.

Where emotional costs followed financial costs, without being mediated by relationship costs, the emotions generally related to a sense of lost opportunities, and future threat to the individuals comfort.

Yes, because the ultimate is that, I've lost so much over so many years, that there is very little left to lose, and I've got this old terrace house, which I've got a mortgage on. And. I've many years of living in really squalid places. And I fear that, I won't, I'll lose control to such an extent that I will actually lose the house. Which is then the equivalent of having lost everything. And I just don't feel strong enough then to pick myself up after that. So it's going over the abyss once and for all. (C10 T1 488-498)

Where emotional costs followed relationship costs, the importance of the relationship in question was generally emphasised, with control having been attempted and having failed. This failure of control then enhanced the emotional costs.

What did make me feel bad was when my mother, because she had to bail me out, I think I owe her in the region of £3,500, or something like that. But obviously had to bail me out on a lot of occasions, and she has given me incredible support, and you just seem like you're throwing that support back in their face. So it wasn't just when I was in financial difficulty. After going on the fruit machines, when I experienced the low after going on the fruit machines, although I couldn't tell anybody about it, the guilt was enormous. And the guilt stemmed from feeling guilty about my mother. (C13 Int1 972-987)

Where emotional costs followed directly from loss of control, either the importance of control of behaviour, or the importance of winning were emphasised by the individual.

T: Anything else about it that is not so good, about the gambling.

C1: Well, it's just like, it's very, very depressing, very, very depressing.

T: You found it depressing, in what way?

C1: Well it's summat, that way I am now I can just not snap out of it. I don't want to do it. I just cannot snap out.

T: So what is it about feeling out of control in that way that you don't like.

C1: I can't. I'll admit to anybody, I just cannot do it on my own now. I mean that's out of control isn't it? (C1 T1 545-564)

C2: I also change my mind a lot. I can't, I'm not decisive enough to say I'm going to back this one horse. I'll go in, and I'll read that, and then I think "No, I'll back this other one". Back other one and first one wins, I do it a lot. Always change my mind a lot. Never been right decisive, you know to stick with something.

T: So you don't like it when you do that.

C2: No I hate it.

T: What is it about that.

C2: I know I should have backed a winner. I shouldn't have been stood there with - losing my money. Like I should have had a winner. I do it a lot of times. Changing my mind a lot. (C2 T1 447-468)

The absence of emotional costs resulting from gambling was reported to be associated with an absence of efforts at control. Financial and relationship costs alone did not result in efforts at control, unless they were associated with values which placed importance on financial probity or relationships, resulting in emotional costs.

I've no regard for my welfare at all. Whether I end up in the Sally Army or wherever, or living in a cardboard box, as long as I've got the money to gamble I don't give a shit. It's only when I'm in, it seems to be like after I've had a big binge on gambling, the two or three months after that, it's like a calm after the storm, and it's during this period that I calm down and get myself sorted out which I have done. The danger period perhaps coming up in two

months time when things are getting better and better and better. But alright, I know there's a black cloud on the horizon, when I'm going to court, that days going to come eventually. But the danger period will arrive in the next month or two, when things start to go well, well things are going well, the money will start coming in and I'm going to be tempted. So, but I've done it before. I've removed temptation before but I've always found a way round it. I've always managed to have a printed cheque out of the cheque book, or I've stolen money from somebody and I've done this and I've done that. (C7 T1 727-756)

Control

Issues of control were common to all the treatment seeking gamblers. Control was reported to have become an issue in the context of self-managed attempts at behaviour change. These efforts at behaviour change commonly occurred as a result of the costs of gambling becoming problematic. Control and loss of control then become an issue when self-managed behaviour change fails. Control related both to the perception of ability to cease or restrict gambling, and the application of strategies to achieve that end.

Efforts at control of gambling were undertaken in the context of gambling performing an emotion management function. Choosing to stop using gambling for that purpose left the individual having to deal with situations which had previously resulted in gambling, with a limited range of alternative strategies available. These situations then became personally relevant triggers to gambling requiring the application of strategies to maintain control. Triggers could be external, such as the sight of a slot machine arcade, having money, or internal, such as thoughts about winning, or emotional states. Financial stress was a particularly important trigger for some individuals, constituting both an external trigger and an internal trigger in the form of thoughts regarding winning. Triggers varied in emotional force across situations, and between individuals, with gamblers linking stronger emotional force with the requirement to apply control more forcefully. Whilst external triggers could be avoided, internal triggers could not be, and often failure of control occurred in the face of a combination of emotionally strong external and internal triggers.

T: How does it feel when you try to stop?

C6: I don't know. Almost as if there's a magnet drawing me back. Walking past the bookies with money, getting money and not going out. When I'm working, it's alright, but it's when I'm not working, and there's racing going off that it's really difficult.

T: So you are describing it as like a magnet drawing you in, what sort of feeling's that?

C6: Like a feeling that I'm missing out on something, you know. (C6 T1 292-308)

The treatment seeking gamblers' experience of control varied across a number of dimensions. These were power, stability, involvement and dependence. Generally at commencement of treatment reported power of control was weak. In the face of emotionally strong triggers, control of the behaviour would break down. This led to a perception that control, when exercised successfully, was unstable. Even when gambling behaviour had not occurred for some weeks, individuals would report this as a temporary situation.

Because I know that I haven't gambled for six weeks and I might not gamble for six months or six years but I will always be a gambler. And all you can do at the end of the day is just take one day at a time. And if you can get through that day you give yourself a pat on the back. (C14 Int1 1069-1077)

Involvement in gambling was a major factor in the ability to apply control. At commencement of treatment many gamblers identified themselves as being embroiled in gambling. That is, they would be thinking about it, talking about it, and generally involved in gambling, whether actually gambling or not, for most of their waking hours. This contrasted with moving towards being detached from the behaviour, a clear indication of greater control.

Like all my friends, they all gamble, so when you see somebody like in the week, sort of racing is on, or Saturday especially, that's all they talk about - horses - like, I fancy this today or. It's either horses or football. That's all they talk about. So you then you're embroiled, you're in, you're dragged into it straight away. (C2 T1 775-789)

T: What do you think is different now compared to what you were doing in January and February?

C2: A lot. I was gambling every day, losing, breaking things, smashing the house. Don't break much now, if at all. I don't go in kicking doors and punching things, well, no, don't. A lot, there's a lot of difference.

T: Mmm.

C2: I'm not like in all the betting shop all the time as I were before, do you know what I mean, like everything I did were betting shop, from getting a paper in the morning, to reading that, to being in for the first race, things like that. (C2 T14 1173-1192)

A majority of the gamblers expressed strongly the view that they had got to a point where self-managed change was not possible. This resulted in a perception of dependence on others to manage the difficulty, and a large degree of hopelessness regarding their situation. In contrast, a minority identified that, perhaps with some assistance, they considered that change was possible. Generally, these were the individuals who stated that they did not consider that they had made significant efforts to change before.

C11: There's times where I have expressed about how I would like to stop or control it or whatever. But I have also said that it is one of those things that is not going to be easy. And with the experience of gambling over probably the last nine, ten years, there are a lot of times where I've lied to myself. And then begin to realise that, I suppose I must be honest with myself and face the facts. Which is saying that I'm not going to be able to stop just like that.

T: And that's obviously your clear view from what you have said is that you don't feel that you would be able to control it yourself or stop it.

C11: I've tried on and off, but it's not, for me on my own it's really hard. This is why I feel that I need the support of somebody who can advise me on how to deal with it. I'm not saying it's going to be easy. (C11 Int1 609-634)

A number of strategies were reported to be utilised to attempt to achieve control of behaviour in the face of triggers. These included attempts to avoid contact with triggers, the application of willpower, stopping and thinking before acting, and the use of social support. The most common at the commencement of treatment were avoidance and willpower. These were both relatively ineffective strategies, associated with a perception of unstable control, and often resulting in extensive gambling.

C12: Well. Sometimes just having access to money. Being in a situation where there is gambling available, and if I don't exercise... If I'm in a situation where, for example since I have come back from holiday, about a month ago, I have been gambling on and off. So if I haven't been away from gambling it doesn't take that much for me to do it. I need to really exercise willpower. And if I am actually gambling day to day then that's no good, because the willpower just doesn't work.

T: So you are trying to exercise willpower to control it, clearly. But what. When you say that the extent to which that works varies, is that according to how frequently you are gambling at any particular time?

C12: Largely. And I suppose it does come down to how I feel as well. And if I've lost recently then willpower is just not going to work. (C12 Int1 61-86)

The use of stopping and thinking related to the cognitive aspect of the treatment utilised in the study, and consisted of considering actions, and consequences prior to gambling or placing oneself in gambling risk situations. It occurred in some individuals at the beginning of treatment, but was generally ineffective at that stage.

I might pick up the paper and see a horse and think that's definitely going to win and I'll be like "no I can't". All day it's in my mind, I wonder if so and so won. Then I might go in and see if it's won, and it's won, and instead of coming out I'll start betting, you know. (C6 T1 308-316)

The use of social support was not a commonly reported strategy at the commencement of treatment. It was identified as an effective strategy at the end of treatment for two clients.

T: But what has helped in terms of what we have done that has contributed to that?

C3: Ermm, well I suppose I have gained a bit more confidence, in being able to talk more easily with people, rather than keeping everything bottled up. (C3 T16 827-835)

Once gambling had commenced, the individual was faced with multiple emotionally strong triggers to further gambling, requiring the application of strong control. The treatment seeking gamblers reported almost no effective control strategies in the face of these multiple triggers to continuation of gambling. Loss of control would continue over extended periods for some individuals, and be related to being embroiled in gambling. Often, triggers to gambling would not be reported in these circumstances, as the action of gambling was experienced as continuous.

Well really because if I'm actively gambling I don't need a real trigger. It's almost like there is a drug buzzing around your system that's just active constantly. You really, you are at a level, and anything trips you over it. For me. So I'll be driving around, and I'll have had a few bets the day or two before, I'll see an opportunity to gamble I'll just be in the door before I even think about reasons. (C12 Int1 863-874)

Loss of control in the face of efforts at control generated emotional distress for the majority of the gamblers, and intense distress for some individuals. The extent of the distress was mediated by a perception that their behaviour was not possible to understand, not knowing why they gambled, and a belief that behavioural control was absolute, that they should be able to achieve control easily.

T: Okay. What else has affected your decision to come at this stage?

C5: The fact that it was getting me down a lot. The fact that I thought I could handle it and found I couldn't.

T: So an aspect that you were unhappy about was not being able to control it yourself.

C5: Yes.

T: In addition to the financial aspects and the impact on your relationship.

C5: Yes. And on the day itself, the way it made me feel on the day. Pretty empty and worthless, pretty useless all round. And to come home and report the fact that I was penniless, and the way I'd wasted it, erm, you know, time and time again really. (C5 T1 142-165)

T: How did you feel about it?

C13: Just frustrated really that I couldn't do anything about it, really. But frustrated that I couldn't do something about something that was so insignificant. You know, I didn't, I didn't, you just don't perceive a gambling problem as something that is difficult to shake off, even though the evidence is there plain and simple. It's something that just involves not putting your hand up with a pound coin and dropping a pound coin in a slot. That's all it is. In a physical sense that is all it is, it's nothing. (C13 Int1 1201-1218)

Loss of control was dealt with by some individuals by abandonment of efforts at control. This was related to a perception that control was not possible, and linked to the view that the behaviour was compulsive, or an illness.

C9: Like I want to stop, but I know at the moment I just can't.

T: Is that something else that's sort of been an aspect of why you've not tried to stop before, because you are telling yourself you can't, or you think that you can't .

C9: I think I can't.

T: Right, right. Does that bother you. Thoughts that you can't stop even if you wanted to?

C9: Yes because I think it's a mental problem.

T: What is it about thinking that you can't stop and that that's a mental problem which is bothering you?

C9: I think I'll be gambling all my life. (C9 T1 578-602)

See table 40 for brief details of the Control paradigm.

Table 40.
The control paradigm

Causal Conditions	Triggers to Gambling, with the properties: Location: Internal - External Emotional Force: Strong - Weak Number of Triggers: Many - None
Phenomenon	Control of Gambling, with the properties: Power: Weak - Strong Stability: Unstable - Stable Involvement: Embroiled - Detached Dependence: Other - Self
Context	Each incident of control of gambling is placed along the dimensions of Power, Stability, Involvement and Dependence noted above.
Intervening Conditions	Alcohol (substance) use Indecision Presence of other interests Social Support
Action/Interaction	Avoids contact with triggers to gambling Stops and thinks about gambling before acting Uses support of family and friends Willpower, just trying to stop, with an absence of specific strategies
Consequences	Not gambling / gambling in a limited way / gambling in an uncontrolled manner Perception of control Emotional consequences

Figure 34 provides a visual representation of the links between gambling as emotion management, costs and control.

Regular gambling (A) is proposed to involve the contrasting of the emotion management effects with the costs of the behaviour. In the context of highly effective emotion management, the costs of gambling need to be high to engender concern in the regular gambler, resulting in a decision to control their behaviour. This is most likely to be as a result of the development of emotional costs resulting from gambling.

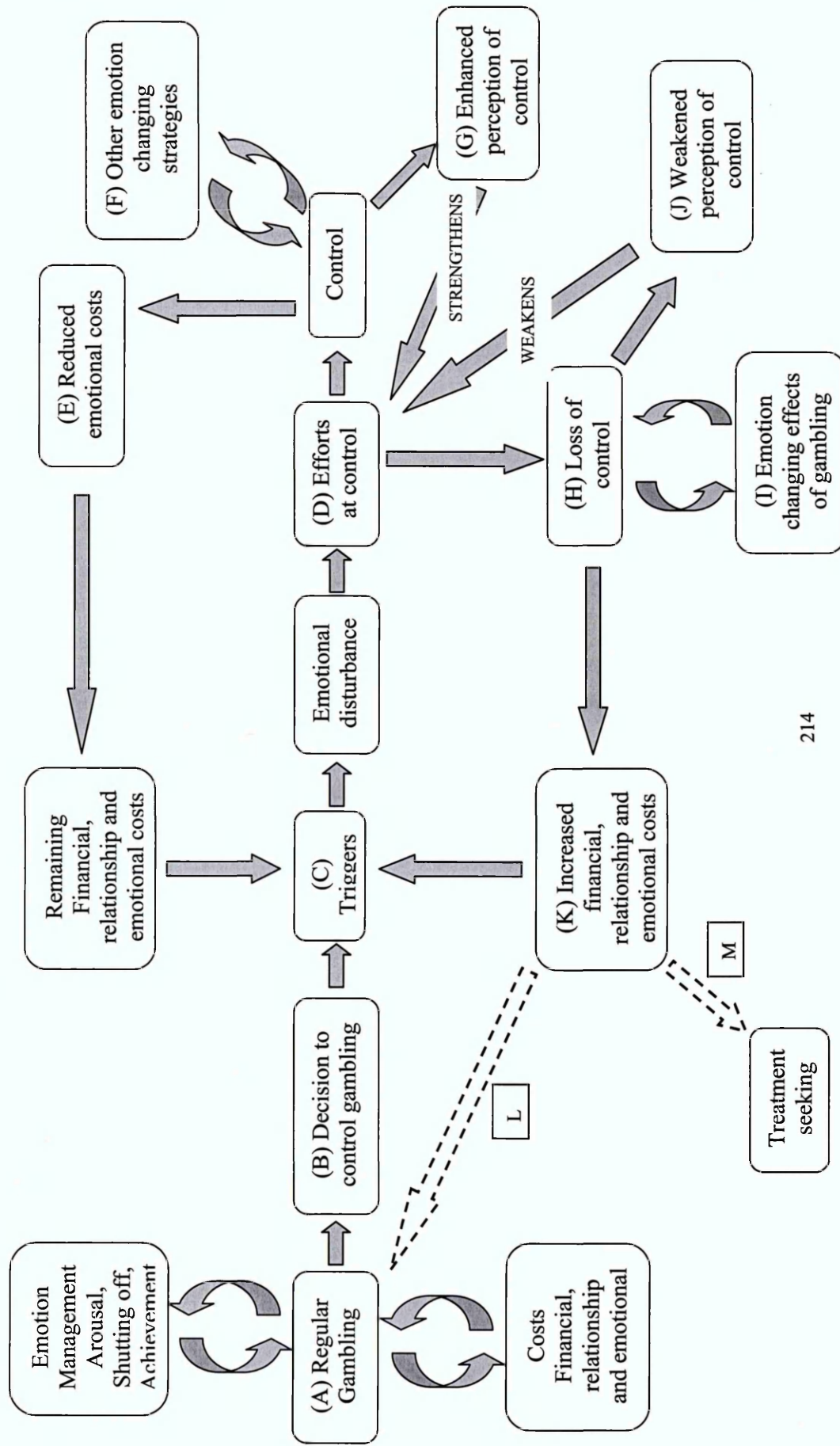
T: And from what you are saying, that there are times when you behave in ways which you would find, quite, you are quite unhappy about.

C10: Yes, because the ultimate is that, I've lost so much over so many years, that there is very little left to lose, and I've got this old terrace house, which I've got a mortgage on. And. I've many years of living in really squalid places. And I fear that, I won't, I'll lose control to such an extent that I will actually lose the house. Which is then the equivalent of having lost everything. And I just don't feel strong enough then to pick myself up after that. So it's going over the abyss once and for all. (C10 T1 483-500)

Following the decision to control gambling (B), the regular gambler is faced with the experience of repeated contact with internal and external triggers to emotional disturbance that they have commonly dealt with by gambling previously (C). Contact with these triggers requires efforts at control (D) to be undertaken repeatedly, as the financial, relationship and emotional costs of gambling will reduce only slowly. If successful, these efforts result in reduced emotional and other costs (E), an enhanced range of emotion management strategies (F), and a stronger perception of control (G). Triggers to gambling related emotional disturbance will gradually lose their emotional disturbing nature.

If efforts at control are unsuccessful (H), the emotion management properties of gambling behaviour are strengthened (I). In addition, the individual develops a changed perception

Figure 34: The grounded theory of problem gambling



of their ability to deal with triggers to gambling related emotional disturbance, a weaker perception of control (J).

I was always on the edge of it, yes. You know, if I didn't do it for a week or two weeks I did feel good within myself but whenever the slightest little bit of pressure which was the children's mum ringing me and saying I need more money this week or whatever, slightest little bit of pressure and I would go off on one again. You know or it's a bit like being a kid really, you know, you pinch sweets out of a shop and as long as they don't see you, you keep pinching them. (C14 Int1 1085-1094)

Both these effects will increase the emotional costs of gambling, with the gambling behaviour increasing the financial and relationship costs (K). Subsequent cycles of failure to control behaviour will further strengthen these links. A further result of the weakened perception of control will be a weakening of efforts at control (D) in the face of triggers to gambling related emotional disturbance.

Well if I'm actively gambling it doesn't even have to be a trigger, to be honest. Because anything that is available will trigger it. But if you are looking outside of that, ermm, sports events, for example there was the penalty shoot-out the other day, I went to meet my friends in the pub, there's the penalty shoot-out about to come on, and on impulse I picked up the phone and put £50 on. Lost. So the trigger is just there, being in the situation where there's something you can bet on, two teams I didn't care about winning. The bet made it more exciting. Very short term that one, so. And then the trigger was "God I can't believe I've just done that, I've got to win it back". So I went out and lost over a thousand that evening. And then the trigger is just playing catch up. Partly to get rid of that sick feeling, and partly because I already lost all I had, and all I was losing was borrowed money or whatever. Ermm. I really didn't have any more to lose. So the trigger there was just trying to win my money back. (C12 Int1 569-587)

In the face of the repeated failure of efforts at control, the effectiveness of gambling as emotion management, and increased costs of gambling, the individual is unlikely to sustain efforts at self-managed control. They may abandon those efforts, and return to regular gambling (L), which will result in a reduced focus on failure, reduced emotional costs and

a higher tolerance of financial and relationship costs. Alternatively they may seek assistance to manage their difficulties in the form of treatment (M).

C14: And what sickened me was getting paid on a Friday, going straight in the bookies or into the pub, have a few beers, down the bookies when you've had a few pints and by Friday night or Saturday afternoon you're back at square one. And it was like a continuous cycle every week.

T: And that was every week.

C14: It was every week basically. Now and again I would behave myself. I'd put a few bob aside because I knew I had to take the children out for the weekend or whatever, but nine times out of ten I would probably delve into that money because I had spent the rest of it. Or I haven't got it to cover the rent or whatever. And I was just getting absolutely sick of myself. And a year ago I decided, that's it, I'm going to try and do something about it, and I 'phoned up Gordon House and said look I've got a problem and I need help. (C14 Int1 199-224)

Within treatment they will still be faced with the difficulties associated with the cycle outlined above. Engagement with treatment will crucially depend on the extent to which the emotion management function of gambling is recognised as no longer helpful. This is less likely if the focus of the gambler's attention to costs is on financial or relationship costs, and the emotional costs are low. Being embroiled in gambling would predict poor engagement with active attempts at change. A high level of belief in aspects of winning, and a focus on gambling as a source of achievement will increase the likelihood of responding to financial stresses by returning to gambling. At commencement of treatment control of gambling behaviour will commonly be perceived as weak.

Treatment effects

The number of individuals in the sample of gamblers who completed treatment was limited to four individuals. In addition C13 identified some changes from entry to treatment at the point of interview. Therefore the proposed treatment effects reported here are more preliminary than other aspects of the reported grounded theory. Treatment effects were

found to relate both to the emotion management aspect of gambling, and to enhanced perception of control. This resulted in lower costs being experienced by the individuals.

Emotion management: Noticeable across four of the five individuals was the reported ability to deal with problematic situations differently at the end of treatment. Emotion management strategies had widened. This was not the case for C1, who continued to report limited emotion management strategies. Perceived strength of control had been enhanced, and this led to increased tolerance of emotional distress.

C1: Oh yeah. I were talking to NAME the other day and he said same. Bad day or rough time. Owt, owt set it off. We were on about it other day he said you could tell what you used to do. All of a sudden, I'd bugger off. He knew where I were going and.

T: Which is clearly quite different from where you're at now.

C1: It's way I'm feeling an' all because I'm a lot happier at work even though you're working all these daft hours. I don't know what that is. I don't know whether that's down to having money in my pocket, being happier, a lot happier, or, it's got to be that hasn't it.
(C1 T14 680-701)

I do find average, or I have done, I have found average everyday life, normal conversations rather dull and boring to be honest. And you know those extreme times were the only things that I found interesting. Whereas now I'm trying to, you know, now I'm getting that thirst for life back kind of thing. I am getting more and more involved in relationships that happen around me, relationships with people at work and you know generally taking an interest in these things. Because at the end of the day they are important. (C13 Int1 1687-1702)

Control: Triggers to gambling were reported to be continuing to occur, but less frequently, and with less emotional force. All clients were noticeably less embroiled with gambling, and their perception of control was stronger, if still somewhat unstable. This change was strongest where behavioural control had been maintained in the face of purposeful contact with triggers to gambling.

C2: I still like to pick them out. Still have a sly look, but it's not so important now. I don't go out of my way to say "I fancy this today". Well I did with that Dazzle like, but I handled that alright.

T: So how is that different from when you started in January, February time?

C2: It's gone down a lot. It's just, I don't know. Maybe because I don't feel so every day involved, like before, I was - that's all, all I had. I'm not saying I've got much else now, but that's all I had. (C2 1238-1255)

T: I said about the Derby last Saturday. What did you decide about that?

C3: Well, I didn't realise it were the Derby this week, Saturday, until I got to work Saturday afternoon, so it were too late.

T: That's a bit of a change isn't it?

C3: Yes.

T: What would you normally have been doing about it?

C3: Well, I would have probably had a look at the form, form guides, and that, probably worked out, tried a reverse forecast, or treble. (C3 T16 711-730)

C1: That one surprised me, when you told me to go to betting shop, but it worked.

T: What effect do you think that had in terms of how you are now?

C1: Well. I mean it just shows me that I can go in and it's not totally ruling me is it? I mean, I've been in a couple of times. Just walked in and walked out. That's summat I could never, ever have done. I'm glad. (C1 T14 773-785)

Costs: The costs of gambling had reduced for all individuals, with relationships being reported as having improved, emotional costs as having reduced, and financial costs partially improved.

Summary

The grounded theory analysis produced a grounded theory of problem gambling from the reported experiences of treatment seeking gamblers. This has focused on the interaction between gambling as an emotion management strategy, the costs of gambling, and the experience of loss of control of the behaviour. Three types of emotion altering effects were identified, these being arousal, shutting off and achievement. Individual gamblers often reported experiencing more than one of these effects. Three types of costs were identified, these being financial, relationship and emotional costs. Treatment seeking was identified as resulting from increasing emotional costs of gambling combined with the failure of self-managed efforts at control. Efforts at control were required in the context of triggers to emotional disturbance which would previously have been dealt with by gambling. The extent of gambling control efforts was mediated by previous success or failure of control in the context of emotional disturbance. Treatment implications of this grounded theory will be outlined in the discussion.

DISCUSSION

This chapter will discuss the findings of this part of the study in the context of the psychological and treatment literature regarding gambling and problem gambling. The strengths and problems associated with the grounded theory approach that has been utilised will be discussed. The researcher will then outline his theoretical orientation as it relates to the undertaking of the research, with discussion of how this was managed to enhance the research process. Finally, further testing of the grounded theory will be discussed, together with the rationale for moving to sample gamblers who report themselves as not experiencing problems.

Issues regarding results

The grounded theory developed within this study provides a complex model of the range of factors affecting the treatment-seeking problem gamblers' experience of gambling. Central to this model is the concept of gambling as emotion management. This interacted with the individual's experience of the costs of gambling, and their experience and perception of control of the behaviour to predict their behaviour in any particular gambling-related situation. The treatment seeking gamblers were not a homogeneous group. Their emotion management strategies were identified as falling into one of three different groups. Gambling could be utilised to either induce or suppress arousal.

In line with the literature on arousal (Anderson and Brown 1984, Coventry and Norman 1997), one means by which emotion was managed by individual gamblers was through the use of gambling to induce arousal. High levels of induced arousal were associated with gambling persistence, where, for some individuals, gambling would continue over several days, with all actions centred on continuing gambling. This focus on the positive emotion generating nature of gambling is similar to the "action" identified by Lesieur (1977), and reported in Gamblers Anonymous texts (Moody 1990), and was clearly highly reinforcing for some individuals.

In contrast, emotion management was also utilised to suppress emotional responses. Those individuals who consistently utilised gambling for this purpose were characterised by poor

tolerance of emotional discomfort. In line with the general theory of addictions (Jacobs 1985), some individuals were utilising gambling as a means to moderate emotional discomfort, finding that the behaviour was successful in distracting them from unpleasant emotions or thoughts. In line with the proposed importance of aversive tension (McConaghy 1988), and mood states in commencement of gambling (Griffiths 1995b), all individuals reported having used gambling to shut off from negative emotional states associated with attempted control of the behaviour. However, in the absence of efforts at control, suppression of emotional responses was not the main emotion management strategy for many gamblers, with the induction of arousal being the most commonly reported emotion management strategy.

A third aspect of emotion management was achievement through the perceived skill associated with gambling. Achievement was the major emotion management pathway for a small number of the gamblers, and was associated with high levels of arousal for some. The focus on achievement was not restricted to any particular form of gambling, being reported both by individuals who gambled exclusively in off-course bookmakers, and those who gambled exclusively on slot-machines. A focus on perceived skill was not a major feature for the majority of the treatment-seeking problem gamblers. However, the experience and anticipation of winning was associated with arousal for the majority of gamblers. The anticipation of "winning money back" was a commonly reported feature of gamblers when experiencing arousal, and can be understood to relate to the cognitive model of Ladouceur and Walker (1996), which proposes that the misinterpretation of randomness, and inappropriate perception of skill are the central features of gambling difficulties. Similarly, the reported selection of gambling as a means to deal with the financial costs of gambling can be understood to support the cognitive view.

The importance of gambling as emotion management was heightened because individuals had few other emotion management strategies available. It was unclear whether this was as a result of the narrowing of emotion management strategies resulting from specialisation in gambling proposed by Brown (1997), or as a result of problem-solving deficits (Sharpe and Tarrier 1993) which preceded involvement in gambling. The result, however, was the repeated use of gambling to manage emotional states as outlined.

The costs of gambling for the sample were extensive, and were classified as financial, relationship and emotional costs. Costs were balanced against the emotion management function of gambling to determine the point at which attempts at self-managed or assisted change would be undertaken. High levels of financial and relationship costs were reported to be tolerated in the context of highly effective emotion management via gambling, particularly where few other emotion management strategies were available. Increased emotional costs, and/or a reduction of the effectiveness of the emotion management function of gambling, for instance no longer experiencing “the buzz” were associated with attempts at behaviour change. These findings clearly support the importance of discomfort as a motivator to change as discussed by Miller and Rollnick (1991), and parallel the findings of Hodgins and el-Guebaly (2000) that negative emotions were the most commonly spontaneously cited reasons for attempts at gambling behaviour change in their sample of resolved problem gamblers.

Self-managed change was reported by the sample to have often been unsuccessful, with a cycle of repeated failed efforts resulting initially in a tolerance of higher levels of costs associated with gambling. Again, as discussed within motivational interviewing (Miller and Rollnick 1991), discomfort was not enough to facilitate change, if accompanied by a perception of low self-efficacy (Bandura 1977). In addition, the financial, relationship and emotional costs associated with gambling would themselves often be managed by behaviours such as lying and further gambling, leading to further costs in a vicious circle.

Control of gambling was noted in the analysis to have a number of dimensions, including power, involvement, dependence and stability. Control was not an issue much of the time for the gamblers. It was only in the context of attempts at behaviour change that control became an issue. When attempts at behaviour change occurred, the emotion management function of gambling, particularly the “shutting off” of emotional discomfort, became more evident. Prior high levels of involvement in gambling predicted the existence of emotionally powerful internal triggers, as proposed by Sharpe and Tarrier (1993), which generated emotional discomfort. This would support a classical conditioning mechanism in the development of associations between gambling related triggers and emotional arousal (Anderson and Brown 1984; Sharpe and Tarrier 1993). The absence of other emotion management strategies then predicted the management of emotional discomfort through

gambling. Perceived power of control weakened as a result of the cycle of repeated loss of control, with perceived stability of control also affected. Following repeated cycles of loss of control, even extended periods without gambling were viewed as unstable.

Resulting from the failure of self-managed efforts at control was a sense of dependence. That is, the perception that self-managed change was not possible. This was associated with either the abandonment of efforts at control, and the return to regular gambling with a tolerance of higher levels of costs of gambling, or treatment seeking. For the treatment-seeking individuals dependence was evidenced through statements regarding being unable to understand gambling, and being unable to change alone. This supports the importance of generating positive expectancies regarding therapy early in the process (Kirk 1989) in response to the dependence and lack of self-efficacy (Bandura 1977) evident at this stage.

Loss of control was highly distressing for individuals where behavioural control was valued highly. There was distress associated with the need to seek treatment for these individuals, a sense of failure regarding a fundamental issue, that of self-control. This appears an important issue both for the high rate of drop-out from treatment reported in gambling treatment studies (Echeburua et al 1996, Sylvain et al 1997), and in the failure of many individuals to seek help in the first place. Hodgins and el-Guebaly (2000) reported that in a sample of resolved and active problem gamblers the major reason identified for not seeking treatment was the desire to handle the problem on their own, with reasons such as embarrassment/pride, stigma, and an inability to share problems also scoring highly for about fifty percent of participants.

Treatment seeking commonly occurred where the emotion management function of gambling no longer outweighed the emotional costs of gambling, and when the individual's perception of power of control was weak, generally as a result of failed efforts at self-managed control.

With regard to the debate regarding the nature and diagnosis of pathological gambling this study highlights the heterogeneous nature of the difficulties reported by problem gamblers. Although all met DSM IV criteria for pathological gambling (APA 1994), they identified a range of different features. There was differentiation regarding the costs of gambling,

regarding the dimensions of control, and also regarding the emotion management function which gambling was serving. With regard to DSM IV (APA 1994) diagnostic features (see table 41), the reported costs of gambling related to items 7-10, the dimensions of control related to items 1, 3, and 6, and the emotion management functions related to items 2,4 and 5. The achievement function of gambling reported in this study is not represented within the diagnostic criteria.

Methodological issues

The use of a grounded theory approach was well suited to the research questions being addressed in this part of the study. Those questions related to how individuals seeking help for an identified gambling problem experienced their gambling behaviour, and how their experience changed through the process of therapy. Importantly, clients were not asked why they were undertaking the behaviour, but how they experienced it. This is an important distinction which has been noted by Stiles (1993) to relate to asking participants questions they can answer, to ask about experiences rather than motivations. Within this part of the study, the sample were restricted to treatment-seeking problem gamblers who were all male. This limits the extent to which the resulting model can be generalised to other populations of gamblers and women. However, what has been produced is a testable if complex perspective on a difficulty which has been, and remains, difficult to treat (Oakley-Browne et al 2000). The next part of the study investigates the extent to which problem and non-problem gamblers can be differentiated on the basis of the categories developed within this section. This will be discussed further below.

A number of strengths of the method as applied can be identified. The process in the research was overt, rigorous, and involved an engagement with clinical and interview data in a way which enabled both commonalties and differences in perspective to be illuminated. There was movement beyond description to a theoretical model which accounts for and is grounded in the data. Individual variability between individuals has been highlighted.

Utilisation of clinical data from cognitive behavioural treatment for the purposes of a grounded theory approach was innovative, and enabled information from clients who

Table 41.

DSM IV criteria: Pathological gambling

- A. Persistent and recurrent maladaptive gambling behavior as indicated by five (or more) of the following:
- (1) is preoccupied with gambling (e.g. preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)
 - (2) needs to gamble with increasing amounts of money in order to achieve the desired excitement.
 - (3) has repeated unsuccessful efforts to control, cut back, or stop gambling
 - (4) is restless or irritable when attempting to cut down or stop gambling
 - (5) gambles as a way of escaping from problems or of relieving a dysphoric mood (eg feelings of helplessness, guilt, anxiety, depression)
 - (6) after losing money gambling, often returns another day to get even ("chasing one's losses")
 - (7) lies to family members, therapists, or others to conceal the extent of involvement with gambling
 - (8) has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling
 - (9) has jeopardized or lost a significant relationship, job, or educational opportunity because of gambling
 - (10) relies on others to provide money to relieve a desperate financial situation caused by gambling
- B. The gambling behavior is not better accounted for by a Manic Episode.

would perhaps not have constituted “good informants” (Morse 1991; Morse 2000) to be included in the analysis. An indication of the efficacy of the research process was the enriched understanding of client perspectives which the researcher achieved through the rigorous analysis of the clinical material and transcripts, even though he had undertaken all the clinical sessions.

Through the theoretical sampling of clinical material, a form of secondary sampling (Morse 1991), and the theoretical sampling of informants, clients 11-14, the generalisability of the grounded theory was enhanced (Morse 1999). This was supported by the lack of new properties and dimensions of the phenomena which were derived from the last two clients interviewed. Despite the different settings in which they had sought help, and the different types of gambling they were involved in, their presentations fitted within the dimensions of the grounded theory which had previously been developed. This provided a form of provisional verification of the theory (Strauss and Corbin 1990; Strauss and Corbin 1998).

The researcher considers that his theoretical sensitivity (Glaser 1978; Strauss and Corbin 1990) was enhanced by his previous experience of working clinically with clients with difficulties associated with gambling. This experience led him to be sceptical that a single model would explain the range of clinical presentations he had encountered. This will be discussed further below. In addition to specific experience with the client group, the researcher has well developed active listening skills resulting from his clinical training and experience, which were utilised to enable clients 11-14 to elaborate on their answers at interview. Because of his clinical experience the researcher was able to gain access to informants in a range of settings. He was also able to engage with informants in a way which allowed a rapid progression within the interview to theoretically relevant information.

Finally, the opportunity to relate the theoretical model developed to prior published work and diagnostic criteria from DSM IV (APA 1994) provides a form of data triangulation (Silverman 2000), and is a further strength of the approach.

Limitations of the methodology relate to similar issues as for the identified strengths noted above. Firstly, a clear threat to the validity of the findings is the extent of the prior experience which the researcher had with the client group, and the nature of his relationship with the individuals and the data. This could have prevented a theoretical openness (Strauss and Corbin 1990), narrowing the range of interpretations considered. How the researcher managed this issue will be discussed below.

Secondly the nature of the interaction between the researcher and clients within therapy interviews may have influenced the resulting data (Silverman 2001; Hall and Callery 2001). Therapy sessions are an interaction, involving reciprocal influence (Miller and Rollnick 1991; Wiser and Goldfried 1998). Clearly the researcher, as clinician, does influence the range of acceptable behaviours within the interaction (Miller and Rollnick 1991; Miller, Benefield and Tonigan 1993; Wiser and Goldfried 1998). Wedgeworth (1998), utilising a grounded theory approach, has argued that gamblers receiving treatment within a residential treatment service in the US were socialised by the treatment service into accepting the label, and reporting the features of pathological gambling, despite not reporting a profile which matched the diagnosis at interview. Cognitive behavioural psychotherapy is an educational, directive form of therapy (Hawton et al 1989), part of which entails enabling the client to develop a changed perspective on their difficulties. As such there is a clear danger that the data being analysed are a product of that socialisation rather than representing client experiences. Within this study this issue was managed through the selection of transcripts of early clinical sessions which preceded client education. Written clinical materials used came only from the beginning of therapy. Within the clinical sessions a motivational interviewing style was utilised (Miller and Rollnick 1991). These sessions involved the individuals 'telling their gambling stories', with extensive use of reflection and summary, and the exploration of client ambivalence regarding gambling. Transcripts from the latter part of therapy were utilised to identify change following therapy. This issue reinforces the importance of the confirmatory nature of the four interviews undertaken, with regard to the grounded theory (Strauss and Corbin 1998).

A further issue was the lack of an opportunity to check the analysis through the use of a second analyst (Stiles 1993; Madill, Jordan and Shirley (2000). This would have

strengthened the confidence the reader could place in the researcher's analysis, but was not a possibility available to the researcher.

Finally, the nature of reporting the grounded theory study requires the selection of illustrative examples from the large number of pieces of classified data available to the researcher. This potentially threatens the validity of the report if an accusation of selective 'anecdotal' reporting can be made (Bryman 1988). This issue has been partially addressed in this study through the use of multiple examples of client statements, and the use of explicit criteria for selection of pieces of text. Text examples were selected as being representative of the sample, with extreme examples being avoided. Where a continuum of experience was avoided, contrasting examples relating to different points on the continuum were selected.

The theoretical orientation of the researcher

Within this section I will use the first person, as it relates to reflections on my orientation and preconceptions.

I am a white British male in my early 40s. I have a degree in psychology, a qualification in mental health nursing, and a further training in cognitive behavioural psychotherapy, the ENB650 (English National Board for Nursing, Midwifery and Health Visiting 1988). I registered as a cognitive behavioural psychotherapist with the United Kingdom Council for Psychotherapy in 1994, via the British Association for Behavioural and Cognitive Psychotherapy (BABCP 1997), and have retained my registration since that time. This has required the undertaking of appropriate continuing professional development, and the maintenance of adequate levels of supervision. Throughout my professional life as a mental health nurse and cognitive behavioural psychotherapist my primary role has been that of clinician. In addition I have undertaken previous research, and have taught cognitive behavioural psychotherapy to a range of health professionals. These experiences have been partly responsible for shaping my theoretical orientation, although the orientation has also been pertinent in the selection of the experiences. With regard to gambling, I have assessed approximately sixty individuals seeking treatment for gambling

problems, and have treated approximately thirty. I have utilised a cognitive behavioural approach as outlined in Section Two, with modifications according to assessed client need.

In addition to clinical experience my personal experience with gambling may be relevant to my perspective on gambling. This constitutes the placing of one bet, on the English Grand National, some twenty years ago. I have never bought a National Lottery ticket, played on a slot machine, or bet in an off-course bookmakers, other than on that occasion. I have never found gambling particularly attractive, and consider it a waste of money. This is not due to any moral or religious objection to gambling, but rather represents a lack of personal interest in the activity.

How may this clinical and personal experience have affected my theoretical perspective? Training as a mental health nurse provided me with familiarity with the medical model, together with a psychosocial perspective on distress. This balance of perspectives was further developed through my specialist training in cognitive behavioural psychotherapy. Within that training there was much emphasis on awareness of the limitations of diagnosis and the medical model. The main thrust of the training was on the application of psychologically based treatment models to the needs of individual clients within a framework of collaborative working. There was much emphasis on the benefits of quantitative clinical and psychological research to evaluate models of disorders. I consider that this training, and my subsequent clinical development as a cognitive behavioural psychotherapist has led me to think largely in terms of psychological models of distress, linked to a normalising rationale which emphasises the importance of factors maintaining individual's disturbance, and places much less emphasis on the development of that disturbance (Hawton et al 1989; Salkovskis 1995). I place emphasis on the importance of the therapeutic relationship in assisting clients to achieve change.

With regards to my experience and preferences for research, prior to this study I had much more experience of reading and evaluating quantitative than qualitative research. I have undertaken and published studies utilising content analysis (Ricketts and Kirshbaum 1994), and a client satisfaction questionnaire (Ricketts 1996).

With regard to gambling, my treatment experience has been of a group of individuals whom I have, at times, struggled to engage in the process of therapy. Whilst recognising the wide range of different presentations of different clients, a linking theme has been the issue of ambivalence. Ambivalence has related to the behaviour of gambling, to treatment, and to research. I have utilised my clinical supervision to work on feelings of frustration and disappointment which I have experienced associated with the failure of individual clients to engage in treatment. This supervision has helped me clarify the limits of my responsibility for others' behaviour, and the need to continue to offer assistance when requested, and towards the direction preferred by the individual.

Managing the researcher's preconceptions

I have utilised a number of strategies to manage my preconceptions regarding gambling, and to utilise my prior experience with gamblers to enhance the grounded theory analysis. This process was aided by the structured approach selected (Strauss and Corbin 1990), which provided an opportunity to approach the data afresh. Firstly, in utilising open coding, there was a purposeful avoidance of the use of cognitive behavioural terminology in the development of codes, and a focus on client language. The process of asking questions of the data, identifying dimensions of categories early in the analysis, and the seeking for exceptions were applied, to ensure a breadth of perspective. Within axial coding, dimensions of the central categories were developed from the codes generated within open coding, and then reviewed repeatedly against the data. The movement from theory to data and back again was repeated numerous times, with exceptions again being sought. In addition, at this stage, I reviewed previous experiences with the large number of individual gamblers not involved in the study, and asked myself questions regarding the fit of the emerging theory to that experience as well. Finally, in the selective coding stage, proposed relationships between the central concepts were rechecked against data, and also discussed in the latter part of the interviews with clients 12, 13 and 14. I also discussed the developing theory with colleagues working in cognitive behavioural psychotherapy generally, and with those colleagues with experience of working with gamblers specifically, to identify whether there were any aspects of the theory which did not fit their experiences.

An indication that I managed to reflect the material being analysed, rather than my own preconceptions was the fact that the resulting theory was not what I would have expected to emerge. I had anticipated a greater focus on issues of control as central to the model, together with more of a focus on winning, related to the cognitive perspective (Ladouceur and Walker 1996).

Testing the grounded theory

The grounded theory developed within this part of the study makes specific assertions regarding the nature of problem gambling. Specifically, the treatment seeking gamblers reported the repeated use of gambling for the purpose of emotion management. It has been proposed that the relative absence of other emotion altering strategies is a feature of problem gambling. Therefore the proposals deriving from the theory are that emotion altering effects will be reported by all regular gamblers, but that non-problem gamblers will also use a wider range of other emotion management strategies than problem gamblers.

Secondly, it is proposed that, as for the problem gamblers, the financial, relationship and specifically emotional costs of gambling will be viewed as balanced by the emotion management benefits of gambling. However, it is proposed that the experience of increasing emotional costs will be associated with reported ability to control subsequent gambling amongst the non-problem gamblers. This will contrast with the reported tolerance of high levels of emotional costs among the problem gamblers.

Thirdly, ceasing gambling would be expected to require efforts at control on the part of all gamblers in the face of prior triggers to gambling. However, non-problem gamblers would be expected to experience less emotional disturbance as a result of not gambling in response to those triggers, and to be able to deal with that disturbance by a range of emotion management strategies. As a result it is proposed that perception of control will be experienced as strong and stable, with the non-problem gamblers reporting themselves to be self-reliant in controlling their behaviour. They may also report themselves to be less embroiled in gambling than the problem gamblers, as evidenced by the range of other interests and activities they report.

The next part of the study outlines the process of undertaking a confirmatory analysis using a grounded theory approach with a sample of regular but non-problem gamblers. This represented the use of a deviant sample to seek to falsify the theoretical propositions developed within this study (Strauss and Corbin 1998; Silverman 2000).

SECTION 4

Grounded Theory Approach 2. Non-Problem Gamblers

INTRODUCTION

The second part of the study involved the analysis of clinical materials from the individuals treated within the single case experimental design with replications. Further interviews were undertaken with self-defined problem gamblers, with theoretical sampling being used to widen the range of individuals interviewed. A grounded theory linking concepts of emotion, control and the costs of gambling for treatment seeking gamblers was developed. The constant comparative method, theoretical sampling and analytic procedures utilised resulted in a theory grounded in the data, with sampling of treatment-seeking gamblers ceasing when no further categories were being generated by the final two interviews.

The grounded theory developed, although grounded in the data, is open to further verification. Deriving from the theory, specific proposals regarding the difference between the experiences of problem and non-problem gamblers have been made. These assertions are the focus of the third part of the study. This was approached by gathering information regarding the gambling experiences of self-defined non-problem gamblers, and utilising the categorical framework developed within the analysis of the earlier data as the starting point for a further grounded theory analysis. This part of the study sought to identify the extent to which the experiences of the problem and non-problem gamblers differ on the dimensions proposed within the grounded theory.

Specific proposals highlighted are that:

- 1) The emotion altering effects of gambling will be reported by all regular gamblers, but non-problem gamblers will use a wider range of other emotion management strategies than problem gamblers.
- 2) The financial, relationship and specifically emotional costs of gambling will be viewed as balanced by the emotion management benefits of gambling. However, it is proposed that the experience of increasing emotional costs will be associated with reported ability to control subsequent gambling amongst the non-problem gamblers. This will contrast with the reported tolerance of high levels of emotional costs among the problem gamblers.

- 3) Ceasing gambling will require efforts at control on the part of all gamblers in the face of prior triggers to gambling. However, non-problem gamblers would be expected to experience less emotional disturbance as a result of not gambling in response to those triggers, and to be able to deal with that disturbance by a range of emotion management strategies. As a result it is proposed that perception of control will be experienced as strong and stable, with the non-problem gamblers reporting themselves to be self-reliant in controlling their behaviour. They may also report themselves to be less embroiled in gambling than the problem gamblers, as evidenced by the range of other interests and activities they report.
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The use of a grounded theory approach to further test a developed prior grounded theory follows the postpositivist approach (Pidgeon and Henwood 1997; Lincoln and Guba 2000) utilised throughout this thesis. The approaches used are described and discussed in the next chapter.

Outline of the method

As with the second part of the study the method utilised in this part of the study is that of grounded theory (Glaser and Strauss 1967; Strauss and Corbin 1990). The method is introduced in the method section of section 3. The specific use of the strategies within this part of the study are detailed below.

Accessing The Sample

The individuals making up the sample for this part of the study were recruited by being approached by the researcher within a Sheffield city-centre branch of Ladbrokes bookmakers. Access to Ladbrokes was negotiated through contact with the national office of Ladbrokes plc. The branch manager and counter staff were aware of the nature of the study and the process of recruitment. The branch was chosen because it had a central location and was reported by the regional manager of Ladbrokes to have a mixed clientele. The Ladbrokes branch was in a basement setting, with limited natural light. There were two entrances, both of which involved descending steps to enter the branch. Within the building, there was a counter at one end, where the staff sat behind a counter, and took the bets. Partially covering two of the other walls were banks of televisions, eight in total. On the remaining wall space were arranged newspaper pages detailing racing information, and pages of information regarding sports betting. Below these, around the walls were counters for writing out bets. Centrally placed in the office were a group of three slot machines of various types, with a fourth machine against a wall. Chairs, a table, stools and a central counter made up the remaining furniture. There was a drinks machine, rarely used, selling hot and cold drinks. Ashtrays were available throughout the office, and from mid-day onwards the atmosphere was smoky.

The researcher observed the gambling behaviour of the clientele within the branch before approaching individuals. This enabled at least partial selection of individuals according to theoretical sampling issues in the latter stages of this part of the study. The researcher was careful not to approach individuals as they were in the process of placing a bet, playing on a slot machine or watching a race. Individuals were approached when they were between periods of gambling, or had completed a period of watching a race. Informants were told that the researcher worked for the National

Health Service in Sheffield, and that the study involved interviewing individuals who bet regularly, but did not have a problem with gambling. Individuals who reported that they did not gamble in off-course bookmakers at least once a week were excluded. Individuals who stated that they had a current problem with gambling were excluded. Individuals expressing an interest in the study were provided with the participant information sheet (see Appendix J), and an appointment was agreed at the earliest time possible. Approximately twice as many individuals refused to take part or failed to attend agreed appointments than were interviewed. The most common reason cited was lack of time to take part. A small number of individuals expressed hostility to the research.

Sample

The seven informants who were recruited for this part of the study were male gamblers who reported a high frequency of gambling, but no problems with loss of control. They were assessed against DSM IV criteria (APA 1994) and completed the South Oaks Gambling Screen (Lesieur and Blume 1987). All gambled in off-course bookmakers at least weekly, with three also gambling on slot machines. See table 42 for demographic and gambling behaviour details for these informants.

Data collection and analysis

All the informants were interviewed within an NHS service setting. Interviews lasted between 45 and 90 minutes and were audiotaped. The interviews focused on similar issues to those with clients 11-14, specifically the informant's recent experience of gambling. Specific issues focused upon were derived from the earlier analysis and included the emotional aspects of gambling, the experience of control and loss of control, and the positive and negative aspects of gambling. In addition, informants were asked to identify a situation in the recent past that had put them under stress, and how they had dealt with that stress. This enabled an analysis of the extent to which the individuals concerned utilised gambling as a stress management strategy. Secondly all informants were asked whether they considered that their control of gambling behaviour had been lost or weakened at any point in their gambling history. Where this was identified they were asked to identify what they had done to regain control. Interviews were audiotaped and transcribed by a secretary, with the researcher checking the transcription against the audiotape, ensuring that nuances of intonation, pauses and interaction between the researcher and informants could be noted.

Table 42. Descriptive information regarding informants 15-21

Informant	Age	Employment Status	Duration of Gambling (Years)	Gambling Preference(s)
15	69	Retired	53	Horses; Dogs
16	45	Employed Part time	25	Horses
17	44	No paid employment	29	Horses; Dogs; Lottery
18	27	Employed full time	11	Horses; Slot Machines
19	32	Employed full time	15	Horses; Dogs; Slot Machines
20	55	No paid employment	42	Horse; Dogs; Lottery
21	19	Employed full time	5	Horse; Dogs; Football; Slot Machines
Informant	Reported Gambling Problem. Present / Past	Number of DSMIV Criteria Met	SOGS Score	Reported Gambling In Previous Month: No. of Days / Duration in Hours / Losses
15	No / Yes	0	0	25 Days / 7 Hours / £140
16	No / No	1	1	6 Days / 18 Hours / £150
17	Yes / Yes	2	9	20 Days / 16 Hours / £200
18	No / No	1	1	18 Days / 45 Hours / £150
19	No / No	0	0	6 Days / 5 Hours / £220
20	No / Yes	2	1	24 Days / 120 Hours / None
21	No / Yes	3	2	9 Days / 18 Hours / £100

Following completion of the first three interviews, the transcribed audiotapes were coded utilising the categories developed within the analysis of treatment seeking gamblers. Additional categories were developed where information did not fit within the previously developed categories. Differences between the reported experiences of the treatment-seeking gamblers and the initial non-problem gambling sample were noted, and used to guide additional aspects of the subsequent interviews. Identified additional issues related to the entertainment aspect of gambling, and the relative importance of money within the gambling process.

Following completion of the fourth and fifth interview, the transcribed audiotapes were again analysed. Following open coding of these transcripts, axial coding was undertaken, utilising the Paradigm Model outlined by Strauss and Corbin (1990). Axial coding was undertaken within the grounded theory framework developed within the second part of the study, with the linking of concepts for the non-problem gamblers being initially based upon that derived from information from the treatment-seeking gamblers. Where coded data did not fit within the conceptual framework developed within the earlier analysis this was noted.

Interviews six and seven involved further axial coding. Following this, selective coding was undertaken (Strauss and Corbin 1990). Comparisons were made regarding the reported experiences of the non-problem gambling sample with those reported by the treatment-seeking sample. These were related to the proposals outlined above regarding the proposed differences in the gambling experiences of problem and non-problem gamblers. Sampling ceased at this point as saturation had been reached with no new categories being generated by the sixth and seventh interviews.

Theoretical sampling led to the seeking out of individuals who reported gambling regularly both within off-course bookmakers and on slot machines. In addition, there was a seeking after individuals who were in full-time employment, to contrast with those who were not in paid employment or retired. Informants covered a range of age groups. See table 42 for informant details.

The final product of selective coding was the contrast of the reported experiences of the non-problem gamblers with those reported by the treatment-seeking individuals

outlined in the results chapter, and the elaboration on the grounded theory presented in the discussion chapter.

Memos and Diagrams

The range of code book facilities, memos and diagrams utilised within the analysis were similar to those outlined within the method chapter of Section 3. The code book facility in Ethnograph (Qualis Research 1998) stored the products of coding in the form of multiple codes, with attached definitions. These codes were grouped and regrouped as the analysis progressed utilising the code tree facility in Ethnograph. Both the code book and code tree were printed off periodically, providing a record of changes in perception regarding linkage between codes and categories.

Theoretical memos were produced at each stage of the analysis. These developed in complexity and focus as the analysis progressed, following the stages outlined above, and were related to the analysis in one of three ways:

- Project memos summarised general elements from the analysis, developed concepts and contained the products of higher level theory development.
- File memos related to the contents of a specific file, commonly identifying ways in which particular files evidenced similarities and differences in presentation between informants.
- Text memos related to specific instances of data relating to the stage of the analysis, particularly the process of checking developing ideas against actual data.

Discussion of the Method

The grounded theory method utilised within this part of the study represented the use of data from a deviant sample for confirmatory purposes (Silverman 2000). The form of grounded theory utilised constitutes a postpositivist approach (Pidgeon and Henwood 1997; Lincoln and Guba 2000) to the research endeavour. Issues regarding the nature of social science and the differing forms of grounded theory were discussed in the methodology chapter of Section 3 of the thesis. As discussed in that chapter, the approach taken within this study is one of a number of different approaches to social sciences research that can be taken (Silverman 2000; Lincoln and Guba 2000). In this section, issues additional to those already discussed will be addressed. These are the use of grounded theory approach for confirmatory purposes, the different ways in which the interview data could have been approached, analytic procedures, and the product of the grounded theory analysis.

Use of grounded theory for confirmatory purposes

In selecting a postpositivist approach to the grounded theory method, the researcher was maintaining a consistent position with regard to the nature of social science, based upon a consistent view of the purpose of the research process (Silverman 2000). This view was that the product of the study should, as far as possible, be generalisable (Morse 1999), and able to be utilised in the further development of therapy for individuals experiencing difficulties with gambling. To achieve this the assumption was made that the common aspects of the experience of problem gambling identified within the earlier grounded theory study provide an at least partial representation of the common nature of such experiences, and therefore can be subjected to further testing. Although there are examples of programmes of grounded theory studies building on previous studies (Olshansky 1996), Miller and Fredericks (1999) note that there is an apparent reluctance among researchers undertaking grounded theory studies to move beyond an accommodationist position to one that makes and tests predictions. This can be understood in the context of the apparent, if rarely explicit assumption of a constructivist approach in many published studies (Pidgeon and Henwood 1997). In contrast Strauss and Corbin (1998) argue that the constant comparative method and theoretical sampling provide a means by which earlier theoretical propositions can be open to falsification by subsequent data. This is the process being undertaken within

this part of the study, with the use of a grounded theory approach to confirm or alter the earlier theoretical propositions.

The approach to interview data

The grounded theory approach utilised in this part of the study used transcribed interviews as the data for analysis. The interviews were with informants who defined themselves as regular gamblers without problems. The researcher had no prior relationship with the informants. Interviews varied in length between 45 and 90 minutes. One question arising from the use of interview data in this way is how that data were approached. Silverman (2000) identifies that interview responses can be viewed as either a description of the individual's experience, or a constructed narrative, representing the individual's presentation of themselves in a culturally appropriate manner. Within this study the assumption was made that speech within the interview was a description of experience, including actions, thoughts and emotional states. Informant explanations of actions were treated as experiences rather than causative explanations. Efforts were made to ensure the accuracy and detail of reported experience. The interviewer sought to enable the informants to 'tell their gambling stories', with extensive use of reflection and summary initially, followed by the use of a question structure derived from the earlier analysis. The reflective approach sought to encourage informants to consider and elaborate extensively upon their replies, with the returning to issues of interest on several occasions through the course of the interviews (Silverman 2001).

An awareness of the narrative approach to interview data (McLeod 1994; Silverman 2000) enabled interesting process aspects to be noted. Specifically, it was clear that many informants gave relatively positive and unproblematic replies to questions regarding their gambling whilst being recruited within the Ladbrokes setting. For several there was a greater willingness to disclose their level of involvement in gambling, and the existence of problems once within a health service setting. In addition, some of the reports from informants developed through the interview, with the reporting of wider impacts and additional control strategies later within an interview. This can be understood to relate to the initial impetus for informants to present themselves in ways that are non-deviant (Silverman 2000).

Analytic procedures

The grounded theory method has been contrasted with other qualitative approaches in its emphasis on both theory development and verification (Strauss and Corbin 1998). This part of the study utilised a deviant sample (Silverman 2000) to test the theoretical proposals derived from the earlier grounded theory analysis. As such the codes and categories developed within the earlier study provided a coding frame for the analysis of the data gathered. Additional codes were developed as necessary to represent the reported experiences of the sample. Axial coding enabled the main categories developed within the earlier analysis to be compared to the reported experiences of the non-problem sample. Theoretical sampling, gathering further data until saturation was achieved, and the seeking for negative cases supported the rigour of this process (Strauss and Corbin 1990; Silverman 2000).

Within the postpositivist approach taken throughout this study, the approach to analysis represented an opportunity to disconfirm the findings from the earlier analysis. Specifically, proposals regarding the differences between the experience of problem and non-problem gambling were open to testing through the use of the deviant sample of non-problem gamblers (Silverman 2000). This constitutes the further use of theoretical sampling to provisionally verify previously developed grounded theory (Strauss and Corbin 1990).

It is acknowledged that the theory generated through this method is not found, but made, and that, despite efforts to describe in detail the analytic procedures involved, much of the work undertaken is not open to scrutiny (Silverman 2000). The researcher has been aware of his own theoretical preconceptions in analysing the data, and has attempted to use, rather than disregard these, to enhance his theoretical sensitivity (Strauss and Corbin 1990), and the extent to which the products of the analysis are grounded in the data. The requirements of the constant comparative method ensured that the developing conceptualisation was subject to repeated checking against data, and reduces the threat to validity resulting from a lone researcher “finding” theories which match his or her preconceptions (Brink 1991). An outline of the researcher’s theoretical orientation and personal experience with respect to gambling is provided in the discussion chapter of Section 3. A further reflective section is included in the discussion chapter of this section.

Product of the analysis

The product of the grounded theory study reported in Section 3 of the thesis was a substantive theory regarding the specific situation of subjective loss of control of gambling behaviour among male gamblers. This represented a move beyond description and the labelling of concepts to the integration of concepts into a conceptually dense theoretical explanation (Strauss and Corbin 1998).

There has been some discussion regarding the status of theory derived through the grounded theory approach. Miller and Fredericks (1999) consider that grounded theory is broadly accommodationist in providing explanations for phenomena, rather than making and testing predictions. This perspective is contested by Strauss and Corbin (1998), who identify the constant comparative method as a means by which earlier theoretical propositions can be falsified by subsequent data. As noted above there is an apparent reluctance among researchers undertaking grounded theory studies to move beyond an accommodationist position to one that makes and tests predictions (Miller and Fredericks 1999). The grounded theory approach utilised in this part of the study purposely moves the use of the approach from an accommodationist to a predictive perspective. The theoretical constructs produced within the earlier analysis are considered amenable to further verification or disconfirmation through the process of analysis of data from a group of contrasting informants (Silverman 2000).

The aim of the present study was to test specific proposals regarding the difference between the experiences and reported perceptions of problem and non-problem gamblers. The purpose was to develop a modified substantive theory related to the specific situation of subjective loss of control of gambling behaviour among male gamblers. The extent to which the modified theory could have wider utility is discussed in Section 5 of the thesis.

RESULTS

The seven interviews provided information that was analysed using the codes and categories developed within the earlier grounded theory analysis. Similarities and differences were noted, and additional codes and categories developed where the earlier framework did not represent the reported experiences of the non-problem gambling informants. Axial coding led to the comparison of the non-clinical gamblers' reported experiences to those of the treatment-seeking sample utilising the three main categories generated within the earlier grounded theory analysis. These categories related to the issues of emotion, control and the costs of gambling. The process of axial coding involved comparison of the samples on a number of continua.

In this chapter the nature of the experiences reported by the sample of non-problem gambling informants is outlined and contrasted with the framework derived from the earlier analysis. Emphasis is placed on factors associated with variability between individuals. Throughout the text examples of informant statements related to the concepts will be utilised to illustrate the findings. These examples have primarily been selected as being representative of the sample, and therefore extreme examples have been avoided. Where a continuum of experience is identified this is illustrated by two contrasting text examples relating to different points on the continuum. Tables have been utilised to highlight differences between the reported experiences of the non-problem and treatment-seeking gambling samples.

Informant statements are labelled by informant number and line numbers from Ethnograph (Qualis 1998). Statements preceded by T: are those made by the researcher.

Emotion management

As with the treatment-seeking sample the three aspects of arousal, shutting off and achievement were reported by at least some of the non-clinical sample. In addition the category of gambling as entertainment was reported consistently. A continuum of experiences was noted among the sample, with one individual, Inf.17, contrasted with the

others in this sample. His reports often placed him closer to the treatment-seeking population than the non-clinical sample.

Arousal

A similar range of arousal related experiences were reported among the non-clinical sample as those reported by the treatment-seeking population. Various described as the buzz, excitement, or an adrenaline rush, all individuals reported arousal as a feature of their experiences.

Inf.15: You get excited, you're bound to be, aren't you? You know, because that's the thrill of it, that's the thrill of it, really. If it's yours coming in.

T: That's. So part of the enjoyment is that excitement, that thrill of it.

Inf.15: It's the excitement. That thrill yeah. (Inf.15 401-411)

Arousal was generally linked to the experience of winning or the prospect of winning. It was reported to be strongest in the latter stages of a televised or live race where a horse that had been bet on had a prospect of winning, and immediately following the experience of a win.

That's what it is, it's the buzz, the buzz you get from the feeling of winning. And oddly enough, sometimes, how can I put this. When you lose you get a buzz as well, but it's not the same sort of buzz it's, if you like, God damn it, and I'm going to have a go on another one. You know what I mean, it's not a buzz but it's certainly a feeling that makes you think that right the next one is a winner. You know what I mean that type of feeling. The main one is when you win it's a real buzz it's a good buzz. (Inf.18 191-205)

The sample reported a continuum of intensity of arousal, from mild to strong, which was reported to be relatively consistent for each individual.

T: Something that some people talk about a lot is the sort of buzz of racing and that sort of excitement. Is that something for you or not?

Inf.19: I suppose I get a bit of, like I say, if I've backed the winner, and it's, like I say, a close run race and the horses are neck and neck, I suppose it does. But it only lasts a few seconds, because a horse race only lasts a few seconds. But, if it loses I'm not like ready for topping myself, like, like I should have won, that jockey's fault. But if it wins like, I'm up for a few seconds and that's it, I'm back to normal again. (Inf.19 428-444)

Inf.16: What do I like? Gambling, it is a buzz. It's a buzz in it actually. It's like you are. I suppose that when you are, especially now that they have got the err, the television and you can see the colour of your horse, because every horse has got a colour. So from the race start you know exactly where your horse is, and you can watch the way that it progresses towards the finishing line. I suppose it gives you a buzz actually. (*laughs*) It gives you a buzz to see that your horse is finishing, especially if more than one of you have got the same horse and the horse is coming into the final furlong and you know, you knew that your horse is going to win. And I suppose it does get the adrenaline to keep going, you know what I mean. So.

T: So the buzz of it, the sort of watching, the colours. The action of it.

Inf.16: The buzz. Seeing your horse, seeing your horse finishing and especially pipping another horse on the line, it's an experience that you need to explode. You know it can give you a heart attack if you are not strong enough. I've seen lots of close finishes. (Inf.16 164-197)

No real differences were evident with regard to this aspect of the emotional impacts of gambling between the treatment-seeking and non-clinical samples. However, the extent of persistence of gambling was much less for the non-problem sample. This will be expanded upon below.

Shutting off

This aspect was only reported by one individual, Inf.18. In common with the treatment-seeking sample who reported shutting off, this informant was a slot-machine gambler. However he reported this feature as an aspect of all his gambling, not just that related to slot machines.

Inf.18: Getting away from, is, oh God, every day, you know, arguments with my partner, ermm, stress about bills, stress about, you know everyday things. Phone bill's coming next week have we got enough to pay it? Gas bill, have we got enough to pay that, arguments over money and stuff like that. Just generally, err, domestic stress I think you would call it. Then I just think I've had enough I'm going out for a bit and then I go to the bookies for a bit.

T: And it works?

Inf.18: It gets rid of the stress yes. I mean I haven't got. I'm not one of those that can go in and spend hundreds and hundreds, because I haven't just got that type of money but it does work. I'll go in and I'll only bet, like, say £2 on one horse or £5 on another and a couple of quid on another, but it does work. It relieves my stress, even if I lose. I mean I am upset when I come out when I lose I think, bloody hell I've lost again, but the stress has gone. I go home and the stress has actually gone. I'm gutted that I've lost the money but it's released the stress. (Inf.18 116-141)

One other informant reported previously using gambling to manage emotional disturbance. Again, he reported slot-machine gambling. Within the treatment-seeking group, this was an aspect most commonly reported in the context of attempting to cease gambling. Given that none of the sample of non-problem gamblers were attempting to cease gambling at the time of interview it may be that this was partially related to the absence of reporting of this feature. However, even in the context of reduction in gambling, the feature of shutting off was not reported for the remaining non-clinical gamblers.

I don't think I would ever have a bet just to cheer myself up. I'd sooner go for a pint to cheer myself up really. I'd sooner have that type of stimulation like, you know, a couple of pints and feel a bit happier then really. I wouldn't say I'd go and have a bet just because I'm feeling down. That's not, I'd never think of that really. I'd sooner go and have a pint first. (Inf.15 1422-1432)

In fact, three of the informants specifically identified why they considered it would be a bad idea to gamble when upset, relating this to the unhelpful impact on control of gambling behaviour.

One of the worst thing to do as a gambler is go to the betting shop when you are upset, see, because if your mind is not focused on racing, you are not going to understand every single thing. Because sometime you've got this like, say don't care attitude, you see a horse you like, you just put it on without thinking. (Inf.16 737-745)

Achievement

Six of the seven non-problem gambling informants reported a focus on the skill and achievement aspect of gambling. Skill was evidenced by the process of studying the form and picking out horses. Expertise was confirmed by the experience of winning, and was valued. Expertise was reported to be important for all the non-clinical sample, and was associated with the enjoyment of the sport that was reported.

Because I can't see the point of just walking in and seeing one named, I don't know, Banana Split and thinking oh that sounds good, I'll go and put my money on that. I can't see, because I'm just taking a complete and utter chance then, for me. I do get, actually get, the part where I am looking, reading through, working out, you know, how many it has won and how many it has lost blah, blah, blah. It does all add to part of the feeling that, you know, you get. Because if you actually study it down and go through all the horses and weigh it all up and you go through it all, and you then actually pick the winner, you feel a lot better because you have studied it and you have picked it out. You have gone through it, you have worked it out in your head, you've picked it and it's gone and won. And you feel absolutely brilliant about it, that you have gone and done that, you know, you know. (Inf.18 1236-1261)

This focus on expertise was very similar to the treatment-seeking sample, but was not associated with the same extent of persistence in the face of losses. A vicious circle of borrowing money to try to win back previous losses was reported by only one of the non-problem gamblers. This was the only individual who reported returning another day to attempt to regain prior losses.

Inf.17: Like I'm in debt with a lot of things, and this is it, I gamble trying to win something to pay these debts off and I'm just making it worse and worse and worse, as you can understand. I'm spending money because I can't afford it and then I think, well they're going

to come round tomorrow, bailiffs and what have you. Well I haven't got as bad as that. Sometimes my rent has never got paid because I spent my rent money.

T: And again that's a pattern you have mentioned, isn't it, is trying to win money to cover debts that you've got outstanding.

Inf.17: Yeah, yeah. Then I start to borrow and borrow and borrow then. Like a circle.
(Inf.17 1708-1728)

There was variability across the remainder of the sample as to the extent of persistence of gambling reported within a session.

Well, I have my favourite trainers and jockeys, I look for that and course and distance winners, and what have you. I just look at that. Like I say, usually I limit it down to, say, if there's four races on television, I'll have a bet like probably on those four, but like I say, I think there's nine on tomorrow. I won't have a bet on every race. I'll just probably pick four again, what I fancy and put them on. (Inf.19 291-302)

T: Have you ever at any point got into sort of chasing?

Inf.16: Chasing?

T: Chasing your losses so to speak.

Inf.16: Well to be honest right, that is almost one of the key parts of gambling, chasing your losses like. Ninety percent of the time you are losing anyway. That's why I said that if you haven't got the discipline you will always be chasing, you will always be chasing the money. And I'm, right, see I'm telling you all this right, I'm, you know, I've actually proved that I am right. That you can pick up one horse a day. (Inf.16 647-665)

Entertainment

Six of the seven non-problem gamblers reported gambling as an entertainment, interest or hobby. They would commonly justify the amount spent on gambling by contrasting the amount spent to that on other leisure pursuits.

Like I said, people like to say, I know a kid who will go out and spend £50 or £60 a night in a night club. Like I say I don't bother with night clubs. I go to pubs and what have you, but like I say, people err. Like some people go fishing, I go fishing myself, and that costs a lot more than what it does with gambling. Because a license is about £10 or £15 a time. My fishing tackle is worth nearly two or three thousand pounds. So that's the way I see it, really, you pay for your hobbies. Like I say it's just a bit of interest really. (Inf.19 410-424)

Inf.17 was again the exception in reporting fascination with gambling, but not viewing the behaviour as entertainment. He reported arousal and gambling being a set part of his routine, rather than finding the action of gambling entertaining.

Inf.17: It's just Saturdays, Saturdays mainly with me having a gamble, I love a gamble on a Saturday no matter what. No matter if I'm away, or no matter where I am, I like a bet on a Saturday. Just Saturdays, at the weekend.

T: And it's always been a habit for you as you say, for the last 30 years. It's been there.

Inf.17: Thirty years. It might be more than thirty years because my grandmother, she used to go to the pub with bets, and I think I was still at school then so. (Inf.17 1096-1112)

In contrast, the treatment-seeking gamblers did not report a willingness to pay for gambling as a leisure pursuit. The focus for them was more on the aspects of arousal, shutting off and achievement. Although partly related to the arousal continuum, the concept of entertainment related to the evaluation of the whole activity as entertaining, rather than just being limited to feeling good in the gambling environment.

I justify it to myself as, everybody goes out and does something, you know some people go drinking at weekend and spend £20, some people smoke cannabis at weekend, smoke £20, some people go partying and spend £20. I don't drink, I don't take drugs any more, I don't, I'm totally abstinent except for smoking. So I see that gambling is my little bit of release, and if I have got my spare £20 or £30 at the end of the week and I choose to spend it that way then I will. And that's how I justify it to myself. (Inf.18 466-480)

I see it as like if I went to a football match. Travelling to the match and paying to get in. I prefer to go to the bookies and spend my money. It's cheaper going to the bookies and you can win. (Inf.20 143-148)

Emotion management strategies and control

As noted above gambling was reported by only one individual to be used as a means of coping with negative emotional states. This individual also reported some other means of dealing with those states.

But errm, I don't deal with being upset very well. I don't. I honestly don't. But I, how I do handle it. I'll go for a walk, or I'll go and sit in a room in the house on my own. I'll say to my girlfriend I'm going to play on the computer for an hour, and I'll go in the room where the computer is and I'll just lay down on the bed. Just lay down and cool down for an hour. (Inf.18 1043-1077)

Two other individuals within the non-clinical sample reported using gambling to manage negative emotional states in the past. Both these individuals reported that this had been an aspect of gambling becoming problematic for them.

T: I mean have you ever sort of gambled with that sort of don't care attitude.

Inf.16: Yes. Yes, and especially right if someone has upset you, you go through argument, things like that. Many many times I have an argument and the simplest thing that can put you off in gambling like, especially if you. If you talk to people in a way that you shouldn't talk to people like, you can just lose it. Rather than ermm. What I mean is sometime like, you can like say okay, because you are upset you take it out on someone else that has got nothing to do with why you were upset. Sometime that just makes it worse. Because when you go to the betting shop, right, just. All in the mind right, you just want to put on a bet, right and sit there and see the horse. Just thinking that you can't leave, just there. I have been through that, in various places.

T: So what you are getting out of gambling when you are in that sort of phase?

Inf.16: Ermm. I think ermm. You just, you just, you just don't care. It is like, just don't bother about anything you just do it. Ermm. How I feel is that I just don't care, what happens will happen. (Inf.16 759-793)

The range of emotion management strategies reported by the non-clinical sample varied, but indicated an ability to deal with negative emotional states in a number of different ways. This contrasted with the reported use of gambling as the main means of dealing with problems among the treatment-seeking sample.

T: What about now. When you deal with personal things, because we all obviously have upsets, and arguments at times.

Inf.21: Oh yeah. Err. I go round to my friends, I will go and have a game of snooker because it's relaxing and I like to play snooker. And sometimes I like to go and play on my own. Just relax where it is nice and quiet.

T: Okay. Do you do anything else to cope with that?

Inf.21: Just get out of the way.

T: So getting out of the way, going to a friends, doing some snooker, would be ways in which you. Do you ever still sort of go and have a bet to cheer yourself up.

Inf.21: Not once. Not once. (Inf.21 1230-1253)

T: So what do you do if you get upset about things?

Inf.20: Well, like the other day, I should have had a winner, this horse was pulled. And I talked to my brother. Told him that the bookies did me out of plenty of money. Just talked to him, and that calmed me down. There's always another day. (Inf.20 272-282)

T: Obviously, we all get fed up at times. How do you cope when you are getting down or you are upset about something?

Inf.19: Err. To be honest with you I'm probably the most easy going person I have ever met, like nothing seems to worry me. Like I say, I might have a, like I say, my credit card bill might be £200 overdrawn on my credit card bill, but I don't start like whittling about it. Like I said, basically, I face it head on. I just ring them up, I've gone overspent, is it possible to pay it back on so and so a week. Then once it's out of the way then that's it. (Inf.19 680-697)

Summary

The non-clinical sample were very similar to the treatment seeking sample with regard to the positive emotional aspects of gambling. Particularly clear was a common focus in both groups on gambling being associated with arousal and a sense of achievement. There was awareness among the non-clinical sample of the use of gambling to deal with negative emotional states, but the current use of this strategy was only reported by one individual. The use of other emotion management strategies to deal with negative emotional states was evident, particularly the use of withdrawal, alternative activities, social support and, to an extent problem-solving. Gambling was commonly viewed as entertainment by the non-clinical sample, for which it was expected that payment in the form of financial losses would be made. This contrasted with the views of the treatment-seeking gamblers, where there was less acceptance of the payment for leisure perspective, and a greater focus on using gambling to alter emotional states and to win money. See below for a contrasting of the reported costs of gambling across the two samples.

Costs associated with gambling

The grounded theory analysis of the treatment-seeking gamblers' experiences categorised the costs of gambling as financial, relationship and emotional costs. Within the non-clinical sample these same aspects of costs could be identified for at least some of the informants. Whereas with the treatment-seeking sample there were evident links between the identified costs, for the non-clinical sample there was a reported lack of a relationship between the financial and other costs. The exception again was Inf.17, who identified a level of relationship and emotional costs similar to those of the treatment-seeking gamblers.

Financial costs

Financial costs were reported to be expected and the price of gambling. They were not reported to currently result in emotional disturbance for the majority of the sample.

Anything I don't like. No. Nothing at all. I mean, obviously I don't like losing, nobody likes losing. But, it doesn't get me to the point where I think oh I'd love to go and do whatever, I've lost £20 errr. I just think, the way I justify it to myself is I have lost £20, somebody's gone out tonight and spent £20 on beer. What's the difference. That's how I view it. (Inf.18 1337-1347)

The exceptions were two of the informants who reported emotional disturbance associated with both losing money and missing out on winners. This will be discussed further below. Financial costs were limited by all but one of the non-clinical sample by a strategy of separating gambling monies from other monies, and only betting with the identified amount.

I've never really had a problem with it. I've never, like, gambled more than I can afford to lose. Like some weeks, if I have had a short week at work, I've had stuff to pay out and I've only got say £10 spare to have a bet with. After I've paid everything out, I've got a bit of spending money, what have you. I'll put £10 on. Some weeks I've got £60 spare, after I've paid out, I'll put that on, whatever I've put in the bank is to save. I don't leave myself short to have a bet. (Inf.19 384-397)

The higher frequency gamblers consistently reported the simple financial management strategy of paying for bills, food and other essential outgoings prior to determining the amount available for gambling. This enabled them to limit the amount of cash available for gambling. In a similar way the financial costs of trips to the races were limited by having a predetermined bet limit for each race.

Well, my point is quite simple, very very simple. If I am working, right, and you know right you get your money either monthly or weekly or fortnightly, right. The first, you know you reckon right, your shopping comes about, your rent comes about. Me personally right, all I have got to do, my girlfriend say listen, that is your food money for the week. It sounds a bit boring, but I make sure that that taken care of. That is the key part of it. I just got to make

sure that part is taken. I mean, many many time that I get broke, but at the end of the day, right, I know that my rent and my food, my rent is paid for and I've got food in the house. I might not have money to go to a party, go to a club tonight, but I know I got food and my rent paid for. So I always make sure that whenever time I work, right, and this is no bullshit, it is no bullshit right, I always make sure that is taken care of, and what's left that's mine, for my gambling. (Inf.16 990-1015)

Inf.17: If I go to the races I might take, I might take about £150. I'll have about £10 on every race. If I am winning I'll up my stakes, like if there are six races then I might start having a £10 in fact if I win on the first two races I will still keep having £10. If it gets to the fourth and fifth race and I have won about £100, I might have about £50 on the last horse.

T: Right.

Inf.17: I will up my stakes. Because I know I haven't lost. I go to the races with the intention of losing the money that I go with like. (Inf.17 165-182)

This financial cost limiting strategy was contrasted with periods of loss of control by two of the individuals, where problematic gambling was defined as betting in every race, and using monies for rent and bills to gamble.

Inf.20: What I do, I pay my rent, my electric, and buy my food before my gambling. You have to put that first, having a roof over your head, something to eat. If I was doing too much I wouldn't pay my rent. I used to be like that when I was young. Never pay my rent, electric. I'd know.

T: So what was different about your gambling then?

Inf.20: I used to back in every race. You can't do that. Can't back in every race and expect to come out winning. Backing in big races. Fields of 24 horses, 26 horses. Them that do that, they are daft. I never do it. (Inf.20 192-209)

As noted above only one of the sample of non-clinical gamblers reported borrowing money to bet currently.

Inf.17: Like I'm in debt with a lot of things, and this is it, I gamble trying to win something to pay these debts off and I'm just making it worse and worse and worse, as you can understand. I'm spending money because I can't afford it and then I think, well they're going to come round tomorrow, bailiffs and what have you. Well I haven't got as bad as that. Sometimes my rent has never got paid because I spent my rent money.

T: And again that's a pattern you have mentioned, isn't it, is trying to win money to cover debts that you've got outstanding.

Inf.17: Yeah, yeah. Then I start to borrow and borrow and borrow then. Like a circle.
(Inf.17 1708-1728)

Making money from gambling was viewed as desirable, but not a credible outcome by the non-problem gambling sample. Periods of believing that money could be made from gambling were reported to be associated with increased losses by several of the sample. Similarly, gambling in response to needing money was reported to be associated with problematic gambling both from informants' own past experience, and from contrasting their perceptions with those of friends with gambling difficulties.

Yes. Yes. I mean a gambler never think they are going to lose. Well, no, no, no, that's not true. Well, I suppose it is in a way. You never think that you are going to lose, but deep, at the back of your mind, you know that the chance that you are winning every time you go to the betting shop is almost nil. I don't know if that make sense to you. (Inf.16 66-75)

T: Thinking about, you said there was just one time in your betting career when you felt you got too serious on it, it ran away with you a bit. Ermm. What do you think was different in how you were gambling, how you were betting then to how you are betting now.

Inf.15: Well I think that type of gambling was a different type of gambling that I am doing now. I was trying to win. I was wanting to win you know, it's. Well I want to win now, but what I am trying to say. You are wanting that money like, you know, that money would come in handy like, that £20 or £30 like. At that time it would have been handy like, we're

going back a few years like, when £30 was a week and a half's wages at one time, twenty – odd, thirty-odd years ago like. (Inf.15 1024-1046)

Well you will probably get a lot of gamblers, actually a lot of people don't enjoy gambling really, it's just that they are trying to win money. I mean I am trying to win money, but it's the way I'm trying to win money it is part of my enjoyment really. (Inf.15 1842-1849)

This perspective contrasts strongly with the strategy of trying to win money back reported by many of the treatment-seeking gamblers.

Relationship costs

Only one individual in the sample reported a current negative impact on relationships associated with gambling. A majority of the others reported no effects on relationships at any time.

T: And does it affect any other part of your life at present, other than the money you are spending on it.

Inf.18: No. It is not. Not at all.

T: There's no upset with your girlfriend or anything because of it.

Inf.18: No, she has said to me, you know, be careful you know where this could take you. And I have said to her yeah, I am well aware, you know, I am well aware, where this could take me. And we have sat down and talked about it rationally and sensibly, so it is not affecting anything at the moment in my life. (Inf.18 1367-1384)

Apart from Inf.17, those informants who reported that relationships had been threatened by gambling had responded by changing their gambling behaviour.

Gambling has never really seriously affected any of my relationships I've ever had. No. I've been warned, no, not warned, but told, you cut down, right. But most of the time when

something like that occurs right, I would say, is if you are not working, if you haven't got a proper job, you know what I mean. (Inf.16 435-443)

Inf.17 was the exception, reporting that his marriage had broken up because of gambling, but that he had continued gambling. Other relationships were also affected by his gambling. Inf.17 reported this to be in part associated with his perception that stopping gambling would be very difficult or impossible for him, see the control section below. In this regard his reported perception and behaviour overlapped with that of the treatment-seeking sample.

It's a bit like. It's like that in my marriage. We couldn't afford, we used to put our money in like a jar, what we'd got for the rest of the week and I used to take it. And that's how we split up more or less. She'd had enough. But err, I don't know what I'd do to stop it really. I've been doing it all my life. Someone said that, you'll never alter, it's too late. Well I said, it's never too late. A good friend of mine, she always says that, with your betting NAME, you'll never alter. I wish I could stop gambling really. Well, just have a little flutter on a Saturday, and not bother about it in the week. But if it's on television in week and I'm not doing anything, and I'm not working or anything, I've got to have a bet, I've got to have a bet. (Inf.17 759-780)

Well what it is at the moment, like I say, I am living on my own. Well, my son lives with me, he has just started a new job. And if I'm not in the house, because I have to cook his tea, and he plays hell with me. You been in the betting shop all the time. My next door neighbour sometimes she cooks meals for us, and she plays hell with me sometimes. Is he in betting shop NAME. So he's coming home for his tea at our house, he finishes up having it next door and she cooks it him. So my son plays hell with me and my next door neighbour and my dad if he knew I was in the betting shop all the time he would be playing hell sometimes. Even though I'm 44 year old, I'm old enough to do what I want. (Inf.17 342-361)

Emotional costs

Current emotional disturbance associated with gambling was reported by just two of the non-problem gamblers. Inf.17 reported some lowered mood and guilt regarding gambling

at times, together with some anger if he missed out on a winning bet. No strategies for dealing with this were reported by Inf.17.

T: Is there anything that bothers you about it?

Inf.17: Well it's sometimes I do go into a betting shop and I can't afford to do it. And sometimes, I come out, and I get home and. I could really cry sometimes, you know, I've just lain there. You know I have done it before, I've had £100 in my pocket and that £100 is to last me two weeks and I've blown lot of it. So there's got to be something. (Inf.17 385-397)

It was like last night, there was a horse that won last night and I backed it the other week and I told them in pub yesterday, this will win. And I forgot to put a bet on and it won at eight to one, first race. And I forgot to put a bet on. And I'm saying I would have put a bet on it. And I was playing hell, playing hell. So I just, that's it, just one of those things. I've missed it and that's it. (Inf.17 1904-1915)

One other informant also reported some emotional impact of losing, particularly in the context of skill being overcome by unfairness or cheating. This same individual also identified anger when perceiving he had missed out on betting on a winner. In contrast to the treatment-seeking gamblers, this informant used social support rather than gambling as a means to deal with the emotional impact of 'missing out'.

T: So what do you do if you get upset about things?

Inf.20: Well, like the other day, I should have had a winner, this horse was pulled. And I talked to my brother. Told him that the bookies did me out of plenty of money. Just talked to him, and that calmed me down. There's always another day. (Inf.20 272-282)

The perception that some races were fixed was reported to be an aspect of racing that was disliked by a number of the other informants, relating to the perception that skill was being overcome by cheating. However the strength of negative emotions reported was weak and short-lived.

Well I went to the races once, I think Pontefract it was. I liked this horse, and it was winning easy. A young kid on it, I have forgot his name, a young lad he was and he eased off and others come and beat him like. And a lot in the crowd had backed that horse and were disappointed like. And he got about 14 days suspension for that really, well really he ought to have got life. (*laughs*) It cost me about £15 or £20 you know what I mean. Not a lot of money, but it cost me money like. That's what annoys you really. When that happens.

(Inf.15 1000-1014)

An increase in emotional costs was identified as a reason to change gambling behaviour by a number of the informants.

I think if it did start to upset me, I would seriously consider stopping, like. I know it's easy enough to say that now, but I think if it did get me that upset, I think my mates would put me wise to it anyway. It's only a horse race, like, well you've lost a tenner, fifteen, but I don't like, so. (Inf.19 1011-1019)

Summary

The non-problem gambling sample reported much lower tolerance of all aspects of costs associated with gambling in comparison with the treatment-seeking sample. Financial costs were limited for the majority of informants by the strategy of paying for essential outgoings prior to spending 'leisure money' on gambling. Relationship costs were commonly reported to be a trigger to behaviour change with regard to gambling. Emotional costs were limited to the immediate mood change associated with losing money and the perception of cheating and unfairness in the sport. These costs were considered very similar to those that would be tolerated in any other leisure activity, a comparison that was often made by the respondents.

Control

Control issues for the non-problem gambling sample were related to the perception of the ability to restrict gambling, and the application of strategies to achieve that end. Considering the control paradigm from the analysis of the treatment-seeking gamblers experiences it was clear that six of the seven non-problem gamblers considered themselves

to have strong, stable control of the behaviour of gambling, which they were able to apply independently.

Triggers

Triggers to gambling were reported, with the emotional force of those triggers varying across the sample. Triggers included very similar items to the treatment-seeking gambling sample. Both external and internal triggers were reported. External triggers included the racing pages in newspapers, the vicinity of a bookmakers and televised racing.

If I don't, if I haven't got a paper in a morning and I don't go in, it doesn't seem to bother me. If I have got a newspaper in a morning I always get to racing page, I always seem to have a bet. I mean some days I don't buy a paper, so I think I'm not going to have a bet and that's it. It doesn't seem to bother me. (Inf.17 514-522)

Internal triggers most commonly reported were urges to continue gambling beyond previously determined limits whilst within a bookmakers.

T: Yes. Anything about it which is a problem now?

Inf.21: Ermm. Sometimes it's kicked me to put more on than I should when I lost what I said I was going to lose, but I don't.

T: When you say it's kicked you to do that. What does that feel like.

Inf.21: It's like a gut feeling in your stomach, like. It's like there's nothing there. You just, you feel sick, kind of thing. But it's not as bad as it used to be. (Inf.21 404-419)

Control in response to excessive gambling involved the avoidance of triggers for five of the seven non-problem gamblers.

Control strategies

The requirement to apply control strategies increased as the individual became more embroiled in gambling. This appeared to relate to the extent of daily gambling rather than

the frequency of gambling, in that some individuals were gambling six times a week, but did not report the need to apply strategies.

It was like one week, like I was on sick from work, and I think I drew, I only drew about £140. Once I had paid everything out I had only got £30 left spare, so it was either have a bet or go to the pub for a drink. So I thought, well I didn't bother having a bet, I went to the pub for a drink. That was it. (Inf.19 877-885)

The extent of daily gambling increased for some individuals following a larger than usual win, providing more funds for continued gambling. In the context of perceived excessive gambling several informants identified the need to increase gambling discipline as gambling involvement increased. This entailed the restriction of gambling within predetermined limits, and the careful selection of bets, not gambling on every race.

I will give you an example, if me and him are in together in the bookies if I put £2 on a horse and he puts £10 on and it wins, I might only have won £10, he has won £100, yeah. Now he's laughing at me and saying, errr, you should have put a tenner on it blah blah blah. And I'm saying yeah I should have, I should have. But I walk out happy that I've won a tenner, he will stay in there and carry on and on and on until he has won or lost. He doesn't care, it's not about the winning or losing or the amount it's all about, I can't put it into words, it's really frustrating. He's no, there's just no ermm, discipline. He just does not care whether he wins or loses, it's all about the buzz, the buzz of gambling. He just you know. As far as he is concerned he does not have a problem and he will be in the bookies from when it opens until when it shuts. And he will spend every penny he has got. And he will go home at night and he might have lost a grand, he might have won a grand, but either way he's not bothered. He can't see it as a problem. I think that's the trouble. (Inf.18 722-752)

It's, it's very hard to go into a betting shop, right, that kind of thing, and lose money. This is where chasing comes into it. And even if you do win sometime, you just begin to think that your luck is in. It's like, say, you're in no man's land sometimes, you just like, what do I do, do I just go. You have to be. I keep on saying this right, discipline, if you don't have that discipline right, in gambling. I'm not, because many, many times, right, what I say I am

going to do, right, I don't do it. Discipline is the key. That one thing about that old man who talk to me all the time. I mean, he is right. When he wins he goes home. (Inf.16 1246-1263)

The majority of respondents did not report the need to do anything else. The result of the application of control strategies was gambling in a controlled way. Gambling was reported to be within limits, with the emotional benefits being valued, and gambling perceived as not a problem. Self-managed change, if necessary, was reported to be quite manageable.

I can walk out. I can think, well if I go in with £20, I can say to myself at the beginning of the day, right I've got £15 on me today, that's it. I'm going to go in, I'm going to spend this £15. If I win, then I'm going to walk out and go home, if I lose, I hope not. I might actually say to myself, if I win, I'm going to go out and buy myself a new pair of trainers or whatever. But if I lose I'm going to go home, forget about it, it's done. Whereas he will just stay there and carry on gambling regardless. (Inf.18 758-770)

When asked directly how they would cope if they found it necessary to restrict gambling the sample of non-problem gamblers were able to identify a range of strategies, most commonly related to avoidance, social support and alternative activities.

T: If you notice that, you notice you have done too much at some point how do you cope with that, how do you control it?

Inf.16: I just sit there and reflect and something like this, decide to have a break from it, something like that.

T: When you say you reflect would you write down what you have lost. Or do you just think about it.

Inf.16: No, no, no. You actually write it down, actually you probably sit down with a piece of paper and say £30 Monday, £100 Tuesday, and add it up at the end. You know, and then chill out for a while.

T: And that for you would just be not going in at all.

Inf.16: Just not going in.

T: Leaving it out completely.

Inf.16: I don't even watch the racing on TV. But what I usually. Sometime that is like ermm, it's nice to go out of the area, even if like say it's just for, I mean I socialise and just go somewhere else. I find that is something what I do. Like go to London for the weekend, that sort of thing. (Inf.16 600-634)

Inf.17 was the exception among the sample in reporting a perceived inability to stop gambling, with perception of control being weak, unstable and dependent on others.

I know it sounds a bit ermm, it sounds a bit daft, but I will go into a betting shop without thinking what I am going to do the next day, just spend my last £15 on it. I just think about that day, then the following day think how am I going to get that money now to pay this. It's same what I am on about. (Inf.17 472-480)

Inf.17 reported the use of no control strategies and regular gambling beyond pre-determined limits. This informant overlapped significantly with the reported perceptions of the treatment-seeking gamblers.

T: If you thought you were doing too much, what would you do to cope with it.

Inf.17: To cope with it. I don't think I could to be honest with you. I don't know how I could cope with it. It would be nice ermm to be able to say, I'm just going to go in every Saturday and just have a gamble. Not go in Monday to Friday, just go in, and then go and watch them on television. If they win they win, and if they lose they lose. I just can't seem to point myself to say that. (Inf.17 740-754)

Three of the informants reported previous, but not current problems with gambling excessively. They reported that they had utilised a range of strategies to manage those difficulties. These strategies involved the use of avoidance, stopping and thinking before acting and accessing social support. In addition, the use of willpower to manage the transition from uncontrolled to controlled gambling was reported.

T: Thinking back to a time when it was a problem, how did you sort it out. What did you do?

Inf.15: Well I had to stop gambling, that what it is, and I did stop, like see. I tell you the wife took over the finances for that period of time, and that was it. But I think it learned me a lesson really, you know, short sharp shock I think it was really. (*laughs*) (Inf.15 1184-1194)

Inf.20: Well I stopped gambling for three months, six months ago, not long ago> I just stopped going in.

T: And what did you do to manage that?

Inf.20: Last time, I used to walk opposite side from the bookies. Used to feel like I'd fall in if I was on the same side. I kept that up for a week, two week. And then you can do it.

T: So you walked on the other side, to stop yourself falling in.

Inf.20: Falling in to it like, going in without thinking. (Inf. 20 245-262)

In addition to the approaches above one individual also reported the use of gradually reintroducing contact with the gambling environment to increase his perceived control of gambling behaviour.

T: So you used to go in with no money at first.

Inf.21: That's right. I couldn't. I just stood there, looking at the form and when I knew I'd still got the problem, but I was working on it, I'd write a bet out, and I would not have any money on me. I'd just write a bet knowing, and watch it, the race. But after so long I just gradually took a bit of money in my hand and I would not spend it. And then I just progressively built it up, like a ladder, like a chart, just built it up to where I knew I could take, I might go down town and I'd got £200 in my pocket to go and take to the bank, to pay into the bank or whatever. And limit myself to £10 or £20, whatever I wanted to spend. (Inf.21 553-573)

Summary

The sample of non-problem gamblers reported a perceived ability to control involvement in gambling. This was at times challenged by increased involvement in gambling, often following a large win. When this occurred a number of strategies were reported to be effective in returning the behaviour to appropriate limits. Triggers to gambling were reported, but were commonly weak. Several informants were able to contrast their own experiences of loss of control in the past with current behaviour. Loss of control was defined as having occurred when the financial, relationship and emotional costs of gambling increased. Loss of control at some point in their gambling career was reported by four of the seven informants.

Contrasting the two groups of gamblers

At the end of the discussion of Section 3 of the thesis a number of proposals were made regarding the anticipated differences between the problematic experience of gambling and the experience of unproblematic gambling. Those proposals are reviewed here in the light of the information collected from the sample of seven regular but non-problem gamblers. It should be noted that, despite seeking a sample of individuals who did not have difficulties with gambling, one of the sample, Inf.17, perceived himself to have difficulties with control. In consideration of the results of the comparison, the placement on the continua of this informant adds to the information provided by the other informants.

Emotion management strategies

It was proposed in the grounded theory derived from the analysis of the reported experiences of the treatment-seeking gamblers that the relative absence of other emotion management strategies would be a feature of problem gambling. As anticipated, the non-problem gambling informants reported similar emotion management functions of gambling as the treatment-seeking sample. There was a less frequent emphasis on the element of gambling to deal with negative emotional states, and a much greater emphasis on gambling as entertainment. With regard to the issue of the absence of other emotion-management strategies, table 43 provides a summary of the reported strategies from each of the individuals in both the treatment-seeking and non-clinical sample. This indicates the common use of alternative activities and social support by the non-problem gambling

Table 43.

Emotion management strategies reported by the treatment-seeking (C1-14) and non-problem (Inf15-21) gambling samples

Client / Informant	Reported Emotion Management Strategies				Gambling to manage negative emotions
	Withdrawal	Alternative activities	Social support	Problem-solving	
C1	No	Yes	Yes	No	Yes+
C2	No	No	No	No	Yes++
C3	No	No	Yes	No	Yes++
C4	Yes	No	No	No	Yes++
C5	No	No	Yes	No	Yes+
C6	No	No	No	Yes	Yes
C7	No	Yes	Yes	No	No
C8	No	No	Yes	No	No
C9	No	No	Yes	No	Yes
C10	No	No	No	No	Yes
C11	Yes	No	Yes	No	Yes++
C12	No	Yes	Yes	No	Yes
C13	No	No	No	No	Yes+
C14	No	No	Yes	No	Yes
Inf15	No	Yes	Yes	No	No
Inf16	Yes	Yes	Yes	No	No
Inf17	No	Yes	Yes	No	No
Inf18	Yes	Yes	No	No	Yes
Inf19	No	Yes	Yes	Yes	No
Inf20	No	No	Yes	No	No
Inf21	No	Yes	Yes	Yes	No

In the gambling to manage negative emotions column, the extent to which this is present with all reported gambling is indicated by the addition of one or two + signs.

sample, with the extent of use of alternative activities being the main difference from the treatment-seeking sample. The extent to which they reported using gambling to manage negative emotions is also reported. This indicates much less use of gambling for this purpose among the non-problem sample in comparison to the treatment-seeking sample.

Emotional costs and control

It was proposed that the experience of increasing emotional costs would be associated with a reported ability to control subsequent gambling among the non-problem sample. This was proposed to contrast with the reported tolerance of high levels of emotional and other costs among the problem gamblers. As anticipated the non-problem gamblers reported a trade-off between financial costs and the benefits of gambling. This related to the perception of gambling as entertainment for which a price had to be paid, as with other leisure pursuits. There was a low reported tolerance of relationship and emotional costs among the non-problem gambling sample, with, as proposed, emotional costs being reported to be triggers to behaviour change. The one informant who was an exception to this perceived himself as unable to change his behaviour, in common with many of the treatment-seeking sample. This perception was associated with the tolerance of high levels of relationship and emotional costs. It should be noted that the control strategies applied by the majority of the non-problem sample limited the extent to which other costs would have to be borne.

Perception of control

It was proposed that ceasing gambling would be expected to require efforts at control on the part of all gamblers in the face of previous triggers to gambling. However, it was proposed that the perception of control among the non-problem gamblers would be experienced as strong, stable and that the gamblers would be self-reliant in controlling their behaviour. The non-problem gamblers reported a continuum of strength and stability of control, with one of the sample, as noted above, perceiving himself to be unable to stop gambling. Others in the sample of gamblers reported varying degrees of perceived difficulty when asked directly how they would go about dealing with gambling if they considered that they were developing difficulties. This varied from three who specified control strategies involving avoidance, through to the view reported that they could stop without difficulty, and had done so on previous occasions when funding was not available.

There appeared to be an interaction between the extent of gambling involvement and perceived difficulty with control. That is, the greater the duration of gambling, the more likely the individual would report the need to apply strategies of control. Table 44 summarises the continua of involvement and perceived control among the two samples.

In contrast to the treatment-seeking sample, there is little overlap of the reports of perception of control. The non-problem sample did report themselves to have strong, stable control, and to be self-reliant. This contrasts with the treatment-seeking samples perception of weak, unstable and dependent control. The extent of involvement in gambling overlapped between the samples.

Needing to win

An additional difference between the samples which was not anticipated was a different approach to the issue of winning money. Both the treatment-seeking and non-problem gamblers identified winning money as a factor in the decision to gamble. The experience and anticipation of winning was associated with arousal for a majority of both samples. However, the treatment-seeking gamblers reported the anticipation of “winning money back” as a trigger to the continuation of gambling in the face of losses. The non-problem gamblers reported a more realistic view of gambling, that winning was enjoyable, but that the more common outcome was losing. With one exception, they reported losses to be a payment for the enjoyment of gambling, rather than a precursor to wins. Prior experiences of loss of control were reported to have occurred in the context of “needing the money”. Interestingly the exception to the payment for entertainment view was the individual who reported the greatest features of problem gambling.

Table 44.

Perception of control dimensions. Contrasting the treatment-seeking (C1-14) and non-problem (Inf1 5-21) gambling samples

Client / Informant	Power Weak - Strong	Stability Unstable – Stable	Involvement Embroided - Detached	Dependence Other - Self
C1	Weak	Unstable	Embroided	Other
C2	Weak	Unstable	Embroided	Mid
C3	Weak	Unstable	Embroided	Other
C4	Weak	Unstable	Embroided	Other
C5	Moderate	Unstable	Mid	Self
C6	Weak	Unstable	Embroided	Other
C7	Weak	Unstable	Embroided	Other
C8	Weak	Unstable	Embroided	Other
C9	Moderate	Unstable	Embroided	Other
C10	Weak	Unstable	Embroided	Other
C11	Weak	Unstable	Embroided	Other
C12	Weak	Unstable	Embroided	Other
C13	Weak	Unstable	Embroided	Other
C14	Weak	Unstable	Embroided	Other
Inf15	Strong	Stable	Mid	Self
Inf16	Moderate	Stable	Mid	Self
Inf17	Weak	Unstable	Embroided	Self
Inf18	Strong	Stable	Detached	Self
Inf19	Strong	Stable	Detached	Self
Inf20	Strong	Stable	Embroided	Self
Inf21	Strong	Stable	Mid	Self

DISCUSSION

This chapter begins with a discussion of the strengths and limitations of the grounded theory approach that has been utilised within this section. The findings of this part of the study are then discussed in the context of the earlier findings and the psychological and treatment literature regarding gambling and problem gambling. A modified grounded theory is then proposed, including a proposal regarding the process of transition from regular gambling to problem gambling. This chapter concludes with a reflection on the process of undertaking this part of the study.

Methodological issues

The use of a grounded theory approach was well suited to the research questions being addressed in this part of the study. Those questions related to the extent to which the reported experiences and perceptions of the problem and non-problem gamblers differed on dimensions proposed within the grounded theory developed within the earlier part of the study. That is, the grounded theory analysis was being undertaken for confirmatory purposes (Silverman 2000).

The study of a non-clinical population to better understand a clinical population represents a form of theoretical sampling (Strauss and Corbin 1990; Silverman 2000). In this study it has illuminated the findings of the earlier study, and assisted in the differentiating of the commonalities and differences between high frequency male gamblers who report or do not report problems with control of gambling behaviour. As proposed by Dickerson and Baron (2000) and within the Gambling Review Report (Department for Culture Media and Sport 2001) there was overlap between the treatment-seeking and non-problem gamblers in a number of areas of their reported experiences. The study of the non-problem sample therefore allowed the extent of overlap on the previously identified continua to be reported, and the development of clearer areas of differentiation between the two samples.

The postpositivist approach to grounded theory (Pidgeon and Henwood 1997; Lincoln and Guba 2000) taken within this study can be seen to have much in common with the approach within cognitive behavioural psychotherapy to the development and evaluation of

models of common disorders. As discussed by Gelder (1997) cognitive behaviour therapy commonly involves the movement from clinical observation to simple theoretical propositions, which are operationalised and then tested by both psychological and clinical means. Theoretical propositions are considered provisional and subject to revision in the light of emerging findings. Similarly, the proponents of grounded theory develop theoretical propositions that are grounded in data, and are subjected to repeated testing through reference to that data, and the gathering of subsequent data from sources which are selected using the process of theoretical sampling (Glaser and Strauss 1967; Strauss and Corbin 1990; Strauss and Corbin 1998). This constant comparative method allows for the claim that grounded theories are provisionally verified in the process of the study. Further testing of the resulting theories is not ruled out, although, as noted by Miller and Fredericks (1999) such testing is uncommon. A grounded theory approach based upon a constructivist perspective would have produced more localised and context bound findings (Annells 1996; Charmaz 2000). The use of a deviant sample in the manner used within this part of the study would not have followed from that perspective on grounded theory. The researcher's view was that that the product of the study should, as far as possible, be generalisable (Morse 1999), and able to be utilised in the further development of therapy for individuals experiencing difficulties with gambling, and that the approach selected was most likely to achieve that end.

The issue of theoretical sensitivity and openness in a study utilising a previously developed coding framework is interesting. Given the proposition testing nature of this analysis the use of a prior categorical framework was considered appropriate (Strauss and Corbin 1990), but the need to analyse and account for all the data was central to the rigour of the analysis (Silverman 2000). New codes and categories were developed as necessary to represent those experiences reported by the non-problem gamblers that had not been reported by the treatment-seeking individuals. These included additions to the emotional aspects of gambling in the form of leisure and entertainment, and a greater degree of detail regarding what makes gambling not a problem for the individuals. There was also a clear lack of overlap between the samples regarding the relative positions of individuals on the continua regarding control and emotion management strategies.

Limitations of the methodology relate to the use of interviews as the source of data from the gamblers, and the limitations of having only one analyst. Firstly, the nature of the relationship with the individuals within this part of the study was quite different from that with the informants in the earlier analysis. Informants in the previous part of the study had, in the main, a professional relationship with the researcher. The informants in this part of the study were recruited within Ladbrokes, given information regarding the study, but had no professional relationship with the researcher. A clear threat to the validity of the findings is the extent to which the informants failed to disclose relevant information regarding their gambling behaviour, or responded in ways that they perceived were required by the researcher (Hall and Callery 2001). This threat was addressed in a number of ways. The interview method began with open questioning, with extensive use of reflection and summary, and the revisiting of topics through the interview. More focused questions were introduced later in the interaction, thereby limiting the extent to which the researcher was directive (Silverman 2001). The interviewer was aware of the possibility of being provided with 'moral representations' of actions rather than descriptions of experiences (Silverman 2001), and returned to aspects of reports where there was apparent initial reluctance to identify any problematic aspects of the behaviour. In addition the nature of the constant comparative method, with the overlapping of interviewing and data analysis enabled prior aspects that had not been fully explored in earlier interviews to be elaborated upon within later interviews (Strauss and Corbin 1990).

As noted in the discussion chapter of Section 3 a further issue was the lack of an opportunity to check the analysis through the use of a second analyst (Stiles 1993). This would have strengthened the confidence the reader could place in the researcher's analysis, but was not a possibility available to the researcher.

Finally, it is acknowledged that an alternative approach to the questions being addressed within this part of the study would have been to undertake a quantitative study utilising a cohort design to investigate the proposed differences between problem and non-problem gamblers (Cooke 1989). Such an approach was considered, but was considered to be less able to answer the detailed issues addressed within this section regarding the reported differences of experience between the two samples. Proposals for the use of such an

approach within studies seeking to further test the grounded theory developed within this study are discussed within Section 5 of the thesis.

Issues regarding results

The grounded theory analysis undertaken within this part of the study adds significantly to the findings of the earlier study. Specific proposals regarding the differentiation between problem and non-problem gamblers have been investigated through the analysis of the reported experiences of the non-problem gamblers. It was clear that in many respects the experiences of the individuals in the two groups overlapped, with individual variability of response being reported by both samples. However, several of the specific proposed differences between the two groups were supported. As a result of the study it is possible to make proposals regarding the transition from high frequency but unproblematic gambling to problem gambling.

There was, as anticipated, a clear differentiation between the reported strength and stability of control of gambling behaviour between the two samples. This indicates that the sampling procedures were successful in identifying high frequency, but unproblematic gamblers. Individuals varied on the extent of involvement in gambling reported, there was some variation in the strength of control reported, but only one of the informants overlapped with regard to the issue of control with the treatment-seeking gamblers. This would indicate that differences between the samples could be related to the issues of experience and perception of control of gambling behaviour.

Two aspects of gambling as emotion management were comparable across the two samples. The extent of arousal varied for the non-problem gamblers, but was reported by all of them. This is in line with the literature on arousal (Anderson and Brown 1984; Coventry and Norman 1997). Similarly, the reported experience of achievement through the perceived skill associated with gambling was reported by six of the seven informants. This aspect was more evident among the non-problem sample than it was among the treatment-seeking sample. However, the extent of persistence reported by the treatment-seeking sample was not matched by the non-problem sample. This appeared to be mediated by the differences with regard to the perceived likelihood of “winning money

back” reported. In fact, for the non-problem sample, the one individual who reported this aspect of his thinking whilst gambling reported the greatest persistence. This can be understood to provide further support for the cognitive model of Ladouceur and Walker (1996). Similarly, the non-problem sample commonly reported gambling as entertainment, the price of which was the losses sustained. Whilst there was a clearly stated desire to win money, there was also recognition that this was not a common occurrence. This may provide an indication of the outcome to be sought in cognitive correction strategies (Sylvain et al 1997).

There were clear differences between the treatment-seeking and non-problem gamblers’ reports regarding gambling to manage negative emotional states. There was a less frequent emphasis on the use of gambling to moderate emotional discomfort among the non-problem sample. There was a degree of overlap reported regarding the range of other emotion management strategies used by the two samples. However, the reported use and effectiveness of the alternative emotion management strategies was much greater for the non-clinical sample, supporting the view that this is an important element of problem gambling. This is in line with the proposals by Jacobs (1985) and others (McConaghy 1988; Griffiths 1995b; Brown 1997) regarding the importance of the use of gambling to moderate negative emotional states among problem gamblers. It would also support the importance of problem-solving skills deficits among problem gamblers as proposed by Sharpe and Tarrier (1993).

There was a clear contrast between the treatment-seeking and non-problem gamblers regarding the tolerance of emotional and other costs. Whilst the non-problem gamblers expected financial costs, relationship and emotional costs were reported to have been associated with successful efforts at moderation of gambling in all but one of the informants who reported them. This contrasted with the high level of reported relationship and emotional costs among the problem gamblers. This is similar to the findings of Hodgins and el-Guebaly (2000) that negative emotions were the most commonly spontaneously cited reasons for attempts at gambling behaviour change among their sample of resolved problem gamblers.

A further clear differentiation was the extent to which gambling was reported to be a form of entertainment by the non-problem sample. This again can be seen to relate to the differentiation between the problem and non-problem gamblers with regard to control of the behaviour. Where the gambling behaviour was reported to have been excessive, the non-problem gamblers were able to identify the strategies they had used to bring the behaviour back within acceptable limits. This enabled them, in the main, to retain a perception of themselves as able to exercise strong and stable control of the behaviour of gambling. This then restricted the costs of gambling whilst maximising the emotional benefits, and thereby the entertainment value of the behaviour. Thus there appeared to be a direct relationship between perceived self-efficacy (Bandura 1977) and the extent of enjoyment of gambling.

Overall, the analysis of data from this sample has allowed for the confirmation of many elements of the grounded theory produced earlier in the study. The common experiences of gambling leading to arousal and a sense of achievement have been supported, and the clear differentiation with regard to the use of gambling to manage negative emotional states confirmed. There was clear support for the identification of perceived self-efficacy (Bandura 1977), emotion management skills and perceived likelihood of winning money back as intervening variables that differentiate problem from non-problem gambling experiences.

Implications for the grounded theory of problem gambling

Figures 35 and 36 illustrate proposals deriving from this part of the study regarding the process of transition from high frequency but non-problem gambling to problematic gambling. These proposals are grounded in the data analysed across the two studies.

It is proposed that the arousal and achievement aspects of gambling will be present for all gamblers, and will be experienced as an enjoyable part of the activity. Gambling will be commonly viewed as a leisure activity for which payment is made in the form of losses, despite the application of strategies to increase the chances of winning. This will be a stable position for the majority of gamblers, and is shown as the left section of figure 35.

Figure 35: Non-problem gambling. Management of increased involvement in gambling

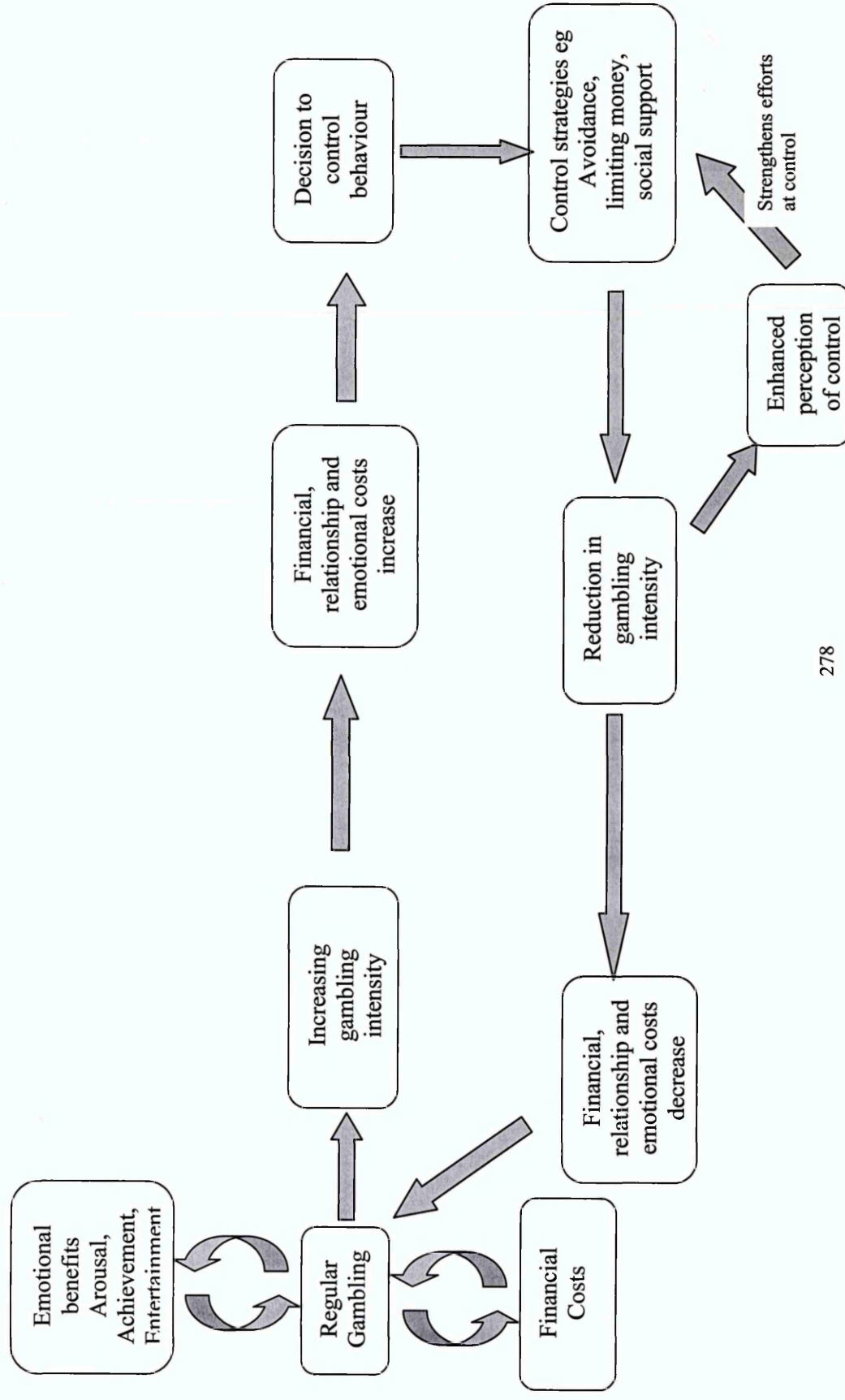
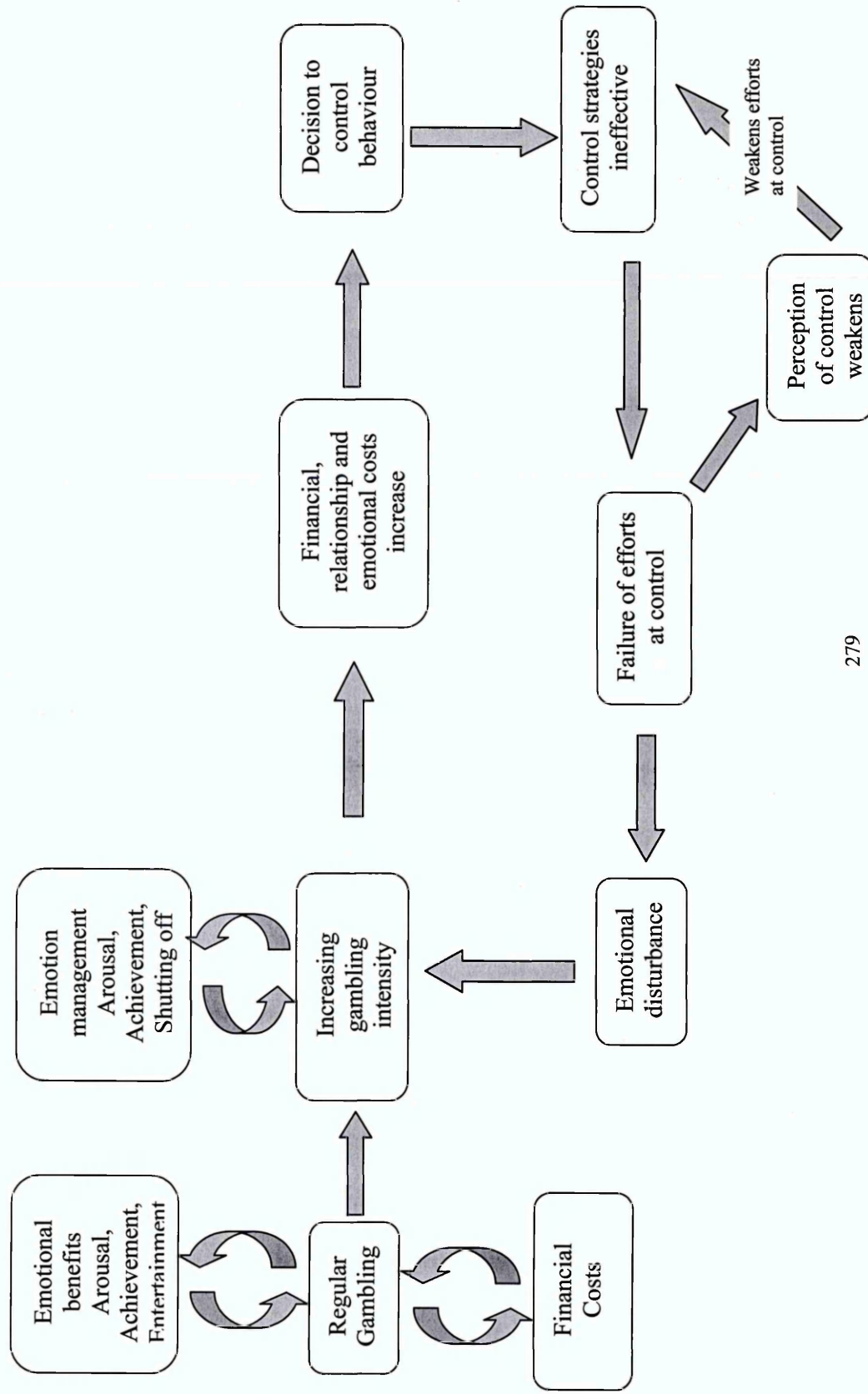


Figure 36: Transition from non-problem to problem gambling



As gambling involvement increases the arousal and achievement aspects of gambling will increase in intensity. Increased involvement in gambling will require increased control strategies to be applied. For the majority of gamblers these control strategies will be readily available and effective. The successful application of the strategies will enhance the individuals perception of control, and subsequent use of those strategies as necessary. This is shown in figure 35.

Figure 36 shows the proposed transition to problematic gambling. As gambling involvement increases there will be an increasing risk of at least temporary loss of control in the form of gambling persistence and chasing prior losses. These experiences of loss of control will increase the costs of gambling, and will generate emotional discomfort. Dependent on the availability of other emotion management strategies this emotional discomfort may then be dealt with by further gambling. A vicious circle of gambling leading to emotional disturbance, and then that emotional disturbance being managed by further gambling will develop. This cycle will be associated with a changed perception of control, which will be followed by a reduction in the application of behavioural control strategies.

A reflection on the research process

Within this section I will use the first person, as it relates to reflections upon my experience of undertaking this part of the study. See the discussion chapter of Section 3 for details of my professional, gambling and research experiences.

Three aspects of this part of the research experience have been personally challenging for me. These relate to the benefits of increased contact with non-problematic gambling, the different nature of relationships with informants, and the effect of disseminating findings from the earlier grounded theory study to my colleagues.

As noted in my reflection on research in Section 3 I had spent very little time prior to undertaking this study within off-course bookmakers. When I had been in a bookmakers it

had tended to be for the purposes of undertaking a cue exposure session with a client. As a result, the experience of spending considerable time within the environment of Ladbrokes was novel, and I was able to experience the environment in a different way. Observation of the varied patterns of behaviour of the punters through the day was illuminating, with variability between individuals with regard to the pace and intensity with which they engaged with the act of gambling. Some, mainly older, individuals spent considerable time relaxing within the environment, not actively engaged in gambling-related activity. At the other extreme, some individuals left immediately once the business of betting was completed. Individuals varied with regard to the extent to which the action of gambling was continuous. That is, the pauses between bets varied greatly.

The nature of the relationship with the informants was different. Clearly one aspect of the relationships I have with clients within the National Health Service is the element of social power. This comes from both the role and title I hold and from my ability to agree to assist the client or to deny them access to treatment. It was salutary to be reminded of the extent of this social power by being placed within a situation where I was, at least initially, just another punter for the individuals I approached. This clearly was an issue evidenced by the rate of refusal that I experienced within this part of the study. Within the bookmakers there was a relative absence of social interaction between the punters, with the majority of communication being with staff. Following a race there was discussion of the result, but this appeared to be formulaic and limited in content. In approaching individuals within the betting office I was breaching the apparent limits of expected communication, and the non-verbal indications of surprise and caution only reduced as I established my status as a health professional, and therefore able to breach the rules of the interaction.

Reflecting on these experiences I gained further respect for ethnographic approaches (Silverman 2000). I could see the benefit of a study utilising observation and field-notes to take forward the study of gambling behaviour. Examples of such studies are those by Lesieur (1977) and Fisher (1993).

A clear impression that came from doing this part of the study was the extent to which, despite my best efforts, I had previously tended to view gambling as problematic rather than a normal leisure pursuit. The extent of contact with regular gamblers outside of a

health setting helped me become more aware of this. This aided my theoretical openness within the undertaking and analysis of interviews with the non-problem gamblers, and the contrasting of their reports with those of the treatment-seeking individuals.

Finally, I have had a number of experiences over the period of this part of the study of presenting the findings of the earlier grounded theory analysis to professional colleagues in a variety of formal settings. This has included a regional group of cognitive behavioural psychotherapists and a national addictions conference. I have talked both about the method and the results of the grounded theory study. What has struck me from being involved within these meetings was the relative lack of respect for qualitative research methods that was evident among the cognitive behavioural psychotherapists as a group. A view that was expressed was that grounded theory is invalidated by the extent of the researcher's input to the analysis. These experiences assisted me to reflect upon the extent to which my own views on the approach have matured over the past four years.

SECTION 5

Theoretical Implications

INTRODUCTION

This section begins with a reflection on the research process within the study. The limitations of the single case experimental design and the grounded theory approaches used are acknowledged. The strengths of the methods used are highlighted, and changes to the methods that would now be considered are identified. The implications of the main findings for psychological theory with regard to gambling behaviour and gambling problems are then highlighted. The implications for treatment of the main findings are then identified and discussed. Implications of the study for further research are then considered, with discussion of clinical, psychological and methodological issues.

REFLECTION ON THE RESEARCH PROCESS

The researcher is a cognitive behavioural psychotherapist. He considers that this has been the major influence on his selection and use of research approaches throughout this thesis. Cognitive behavioural psychotherapy has a long tradition of published work involving the careful analysis of individual behaviour and self-report, the detailed monitoring of change resulting from interventions, and the development, testing and revision of theoretical constructs regarding humans (Wolpe 1958; Beck 1976; Rachman 1978; Clark 1986; Gelder 1997). The approaches utilised within this study share the view of the benefits of the careful analysis of behaviour and self-report. The thread running throughout has been what Lincoln and Guba (2000) term a postpositivist approach to the study of social science. The researcher considers that whilst there have been evident weaknesses to the use of the approaches selected these are outweighed by the clear benefits resulting from the consistent application of this approach within the study.

The single case experimental design utilised has clear strengths in maximising the information gained from the case series. It has allowed for the rigorous application of a model-based treatment to a series of clients. The continuous monitoring of the main outcome variable, gambling behaviour, across baseline and treatment phases has enabled the effectiveness of the treatment to be assessed. In addition, the opportunity to collect a range of psychometric measurements and qualitative data has allowed for the investigation of the processes of change. The clinically representative sample utilised has enhanced the generalisability of the findings to clinical populations, although there have been methodological difficulties associated with the use of such a sample. Overall, a large amount of clinically relevant information has been gathered from a relatively small number of individuals.

Challenges whilst undertaking the single case experimental design have been numerous, but two specific issues relate to the nature of client difficulties, and to the effect on therapy of intensive measurement. Because of the variability in the behaviour of gambling for many of the clients, there was a possibility that type 2 errors, in the form of failing to detect an effect when it was present were increased in order to minimise the risk of type 1 errors in the form of concluding an effect was present when it was not (Kazdin 1982). This

was probably exacerbated by the limited selection criteria used. The burden of measurement on clients was a second specific issue. In the nature of the intensive study of a case series, each individual client was involved in continuous self-monitoring of gambling behaviour (Kazdin 1992), and completed a large number of measures. This clearly had potential for disrupting the therapeutic relationship. Anecdotally one client who withdrew from the research, and later returned for treatment outside of it, did state that she had felt the therapist had viewed the measurement as more important than her needs. The impact on other clients is unclear, but in any future study the researcher would seek to reduce the measurement burden on clients for this reason.

The grounded theory approach, although not familiar to the researcher before this study, has involved an engagement with data in a way that has enabled both the development and verification of theoretical constructs. The constant comparative method (Glaser and Strauss 1967; Strauss and Corbin 1990) has proved a robust approach for ensuring that the researcher's preconceptions did not distort the outcomes of the analyses. The structure provided by the approach has enabled a movement beyond description to the development of a truly grounded theory. The theory produced is amenable to further testing.

Evidence of the theoretical openness resulting from use of the grounded theory method can be seen in the developing conceptualisations regarding the nature of problem gambling which have been produced through the study. Figures 37, 38 and 39 show the models of problem gambling from the single case experimental design, following completion of the first grounded theory analysis, and following completion of the second grounded theory analysis. Whilst sharing some features, a developing perspective is evident, with increased focus on the differentiation of non-problem from problem gambling.

Challenges inherent in the first grounded theory method have related to the issue of sampling strategies and determining an appropriate sample size. Use of clinical data has involved a process of secondary sampling of the audiotapes of clinical sessions (Morse 1991) that were also utilised within the treatment integrity check. The educative nature of cognitive behavioural psychotherapy (Hawton et al 1989) precluded use of sessions that followed client education regarding the treatment model, except for end of treatment comparison. The initial treatment sessions, where a motivational approach (Miller and

Figure 37: The model of problem gambling from the SCED

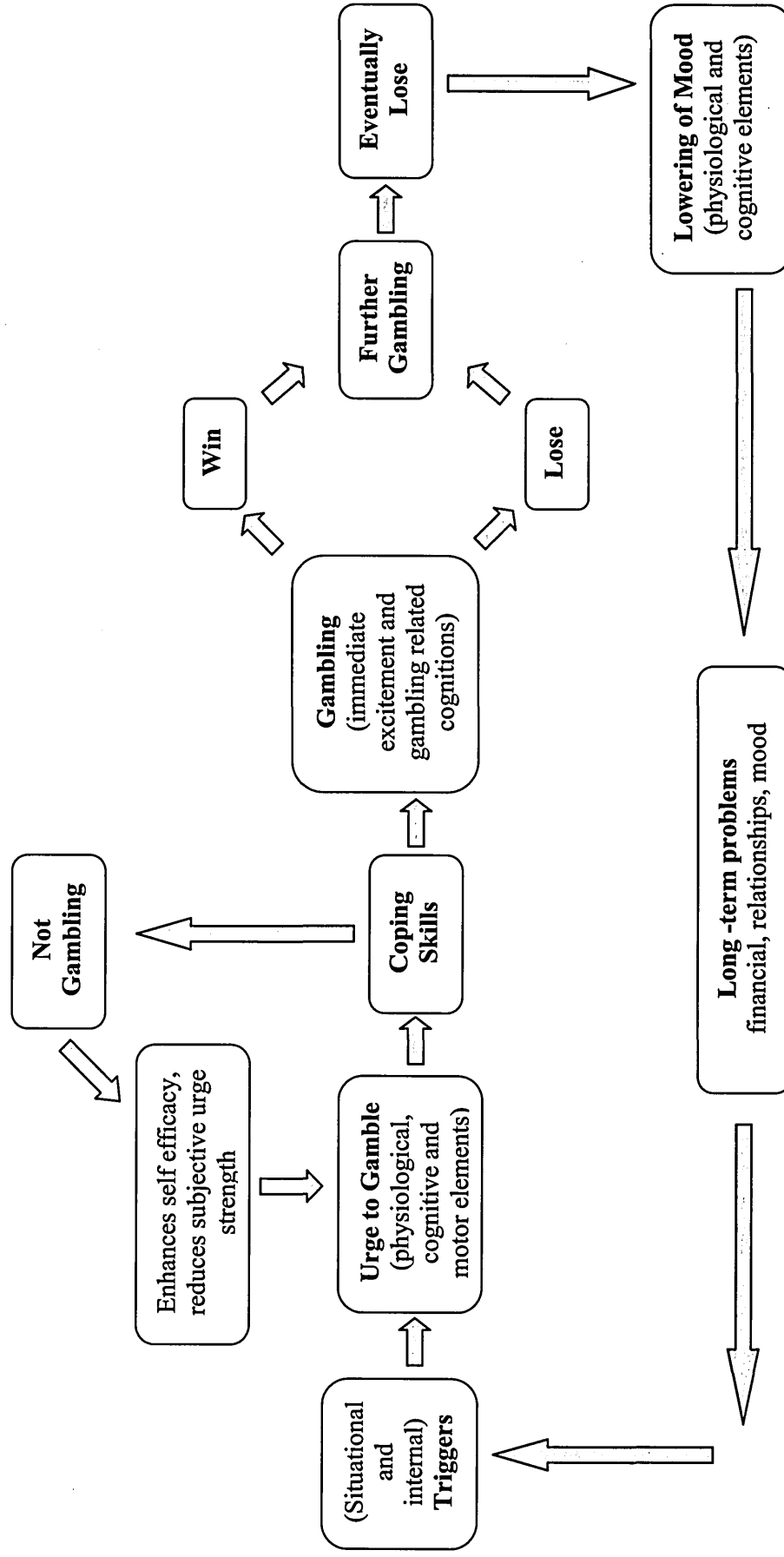


Figure 38: The grounded theory of problem gambling (1)

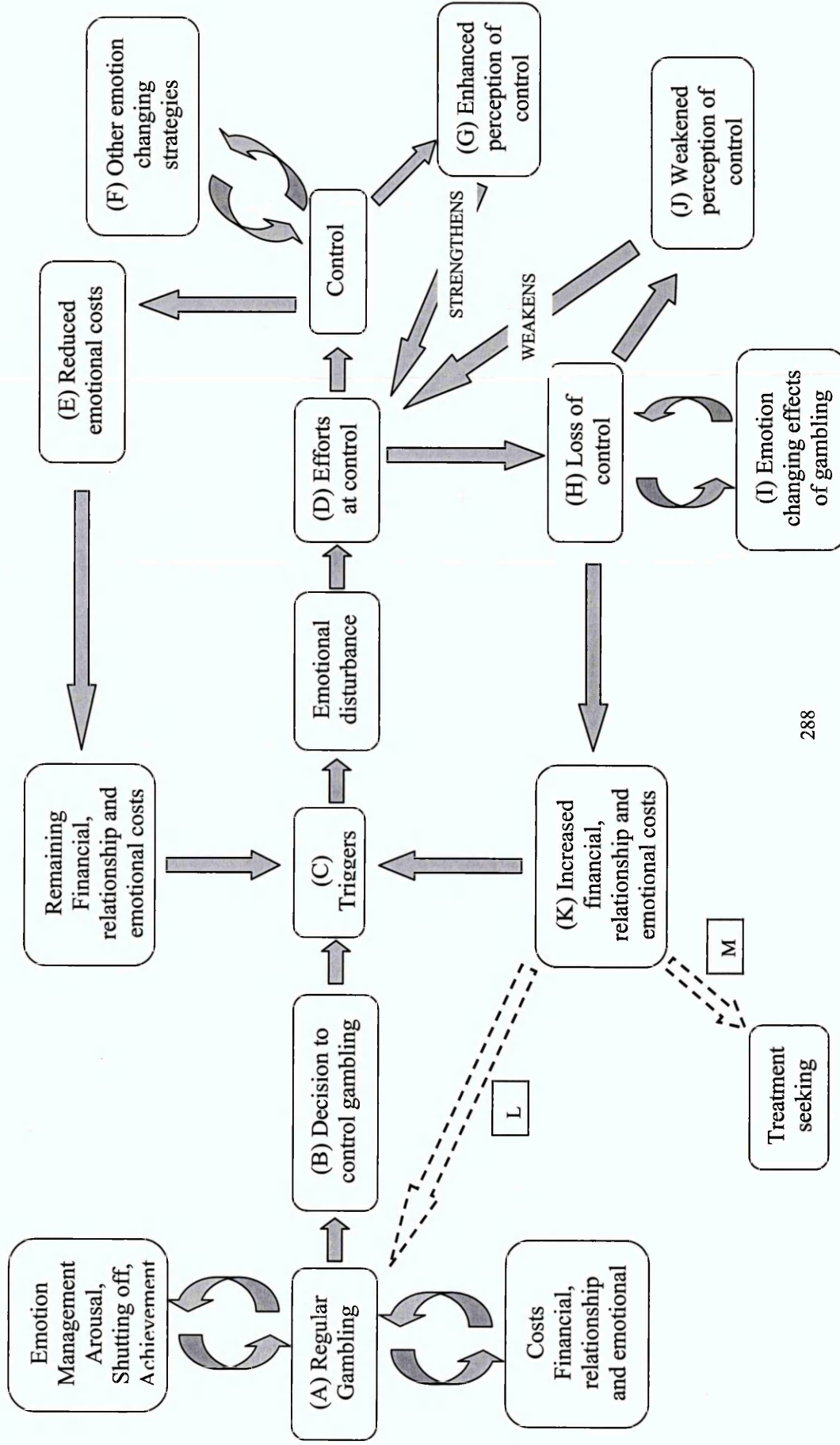
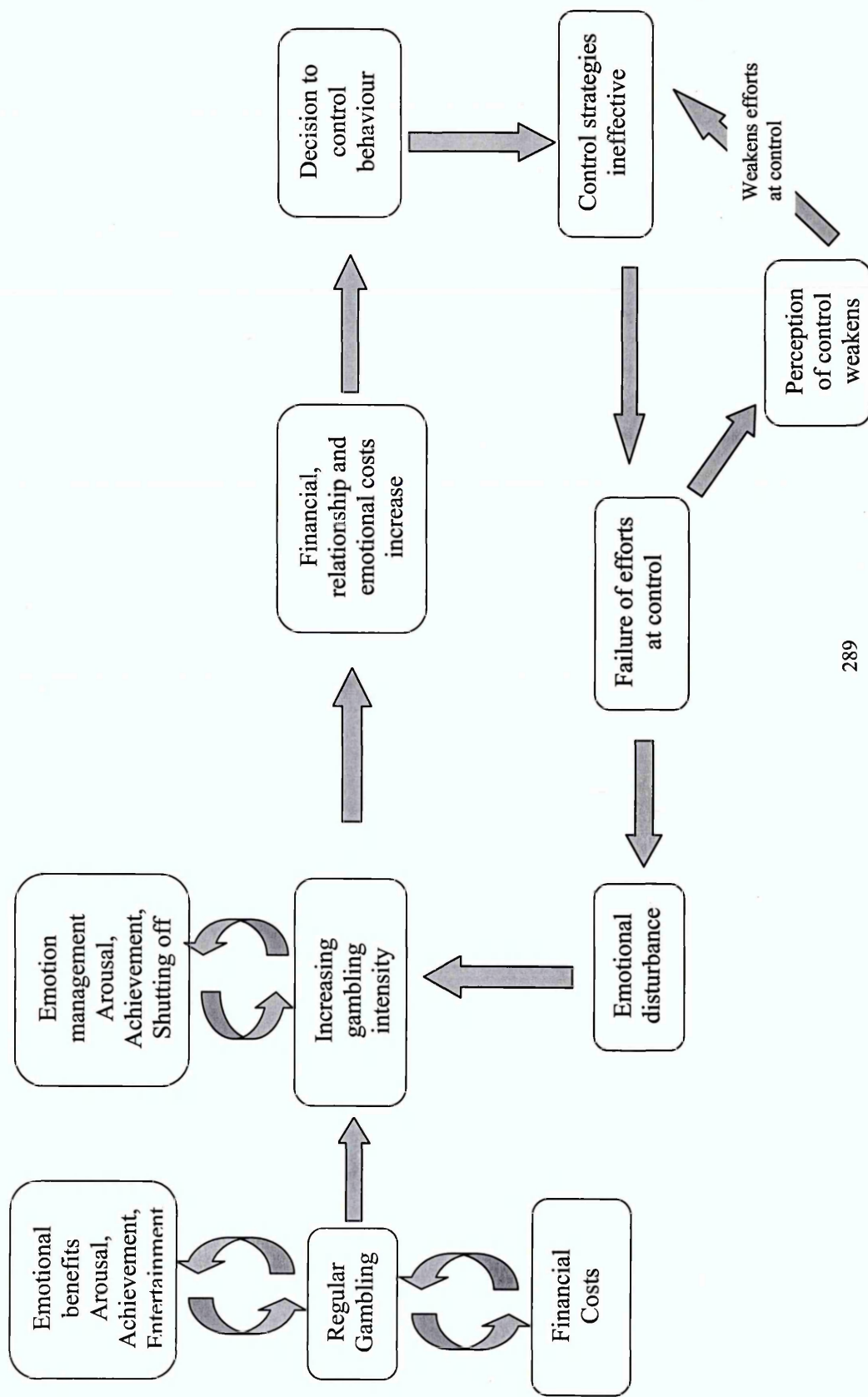


Figure 39: Transition from non-problem to problem gambling



Rollnick 1991) was utilised proved extremely useful for the identification of client perspectives, but the researcher had concerns that the nature of the treatment interaction may have distorted the information gathered (Wiser and Goldfried 1998; Silverman 2001). The additional interviews were therefore important in elaborating and provisionally verifying the model developed. There was little clear guidance in the literature regarding appropriate numbers of additional interviewees for this stage of the grounded theory study (Morse 1991; Morse 2000). Therefore the researcher had to make a judgement in conjunction with his Director of Studies regarding whether the findings represented the achievement of saturation (Morse 1991; Morse 2000) as the basis for the decision to stop seeking further interviews. This was supported by the fact that no new categories were identified within the last two interviews with treatment-seeking gamblers. The limits of sampling mean that the results of this study may not be generalisable to female gamblers or gamblers outside of England.

Within the second grounded theory analysis, an interesting aspect for the researcher was the move to interviews with non-problem gamblers. This enhanced his awareness of the extent to which he had become socialised to problems with gambling. The analysis of the reports of the non-problem gamblers enabled a further theoretical openness on the part of the researcher and allowed for the development of the theory to reflect the common aspects of both samples of high frequency gamblers as well as the differences. The benefits of this further evaluation of the propositions from the grounded theory developed within the earlier analysis were very evident. Specifically the confidence with which the reports could be attributed to the experience of problem gambling, rather than just high frequency gambling was enhanced. The experience has left the researcher even more surprised at the limited number of grounded theory reports in the health literature of confirmatory studies with deviant samples of the nature utilised within this thesis (Olshansky 1996; Miller and Fredericks 1999).

Challenges encountered within this second grounded theory analysis related to issues regarding the narrative approach to interviews (Silverman 2001) and the determination of an appropriate sample size for such a deviant sample analysis (Morse 1991; Morse 2000). The researcher had no professional relationship with the informants within this part of the study. A clear threat to the validity of the findings was the extent to which the informants

failed to disclose relevant information regarding their gambling behaviour, or responded in ways that they perceived were required by the researcher (Hall and Callery 2001). Such a moral narrative (Silverman 2001) was evident for several of the informants in the form of a uni-dimensional presentation initially within the interviews, and was more evident than with the clinical sample. The researcher considers that the strategies used to manage this were appropriate, but it remains a difficulty with the postpositivist approach to this part of the study. The appropriate number of interviews for such a deviant sampling process was not evident in the literature. Again, a judgement regarding saturation was reached in conjunction with the researcher's Director of Studies. This was informed by the extent to which additional categories were being generated by the later interviews, indicating that saturation had been reached (Morse 1991; Morse 2000).

A final issue that applies to both the grounded theory studies relates to the recognition that the theoretical constructs developed within the studies are created not found (Strauss and Corbin 1990; Silverman 2000). The overlap of the findings from this study with those from a number of other sources provides some corroboration that the researcher retained his theoretical openness and represented the data adequately (Silverman 2000). Qualitative research involves a creative process on the part of the researcher, to move beyond description to theory (Strauss and Corbin 1990). The researcher would argue that such creativity is the hallmark of all good research.

Changes that would be considered

There are a number of changes that the researcher would make if undertaking a similar research project in future. These are based on a reflection on the research experience, and awareness of the evolution of the literature over the time taken to complete the study. The researcher considers that combining a single case experimental design with replications with a grounded theory approach to both clinical materials and additional interviews has clear benefits. Changes identified would be:

- The use of narrower selection criteria within the single case experimental design, with the exclusion of individuals experiencing comorbid mental health difficulties.

- The use of a more limited range of outcome measure, excluding the IIP-32 (Horowitz et al 1988; Barkham et al 1996) and the Brief Symptom Inventory (Derogatis and Melisaratos 1983).
- The addition of a simple continuous measure of perception of control as utilised by the Ladouceur group (Ladouceur et al 1998), a direct measure of self-efficacy such as the Situational Confidence Questionnaire (Annis and Graham 1988) and a measure of number of DSM IV criteria for pathological gambling (APA 1994).
- Including within the consent form for the single case experimental design permission to actively follow-up individuals who dropped out of therapy.
- Within the grounded theory studies to include an overlapping of data collection and analysis from the treatment-seeking and non-problem samples.
- The involvement of a second analyst within the grounded theory studies.

IMPLICATIONS OF THE FINDINGS

In this section the implications of the study for psychological models of gambling and problem gambling are considered. Then the implications of the study for the development of treatment for problem gambling are identified. Finally in this section proposals regarding further research are identified.

Psychological models

The results of the single case experimental design add little to our theoretical understanding of gambling problems. The cognitive behavioural approach being evaluated was largely ineffective for a majority of the clients. The sequential addition of cue exposure was the only aspect of treatment that had a specific additional effect both on gambling behaviour and gambling urge strength. This was only evident in two of the nine treated clients. The mechanism underpinning the apparent effect of cue exposure (Symes and Nicki 1997; Echeburua et al 2000) was not illuminated by the results of the single case experiments. Neither the proposed link between gambling behaviour and depressed mood (Sharpe and Tarrier 1993; Griffiths 1995b) or the proposed link between gambling behaviour and anxiety (McConaghy 1988; McConaghy et al 1988) were strongly supported.

The grounded theory approach was better suited to approaching issues regarding psychological theory with regard to gambling. The findings of this study rise to the challenge of Dickerson and Baron (2000) regarding the need to study factors associated with reduced self-control among gamblers. Through studying both treatment-seeking gamblers and non-problem gamblers, it has been possible to identify clear differences between these populations, and to make proposals regarding the transition from high frequency but controlled gambling to problematic gambling.

Three aspects of the reported experiences of the gamblers were identified which appear to differentiate the problematic and non-problematic experiences. These were emotion management skills to manage negative emotions, beliefs regarding winning money back

when losing and perception of control. Other factors were found not to differentiate the samples.

Emotion management skills to manage negative emotions were an apparent intervening variable differentiating the high frequency but non-problem gamblers from the treatment seeking individuals. The reported use and effectiveness of emotion management strategies other than gambling was much greater for the non-clinical sample, supporting the view that this is an important element of problem gambling. This is in line with the proposals by Jacobs (1985) and others (McConaghy 1988; Griffiths 1995b; Brown 1997; Trevorrow and Moore 1998) regarding the importance of the use of gambling to moderate negative emotional states among problem gamblers. It would also support the importance of problem-solving skills deficits among problem gamblers as proposed by Sharpe and Tarrier (1993).

The extent of persistence of gambling reported by the treatment-seeking sample was not matched by the non-problem sample. This appeared to be mediated by differences with regard to the perceived likelihood of “winning money back” reported. This provides support for the cognitive model of Ladouceur and Walker (1996). Similarly, the non-problem sample commonly reported gambling as entertainment, the price of which was the losses sustained. Whilst there was a clearly stated desire to win money, there was also recognition that this was not a common occurrence. This may provide an indication of the outcome to be sought in cognitive correction strategies (Sylvain et al 1997).

Perception of control was another apparent intervening variable. The non-problem gamblers reported themselves, in the main, to have a perception of strong and stable control of the behaviour of gambling. Where gambling behaviour was reported to have been excessive, they were able to identify the strategies they had used to bring the behaviour back within acceptable limits. The treatment-seeking gamblers, in contrast, viewed themselves as having weak and unstable control of gambling behaviour. As a result they would often abandon efforts at control in the face of triggers to gamble. Self-efficacy (Bandura 1977) appears to be an important intervening variable, which is eroded by repeated failed efforts at control, or strengthened by successful moderation of gambling behaviour in the presence of costs which are perceived as excessive.

Two other aspects of the emotional nature of gambling identified within the study did not differentiate the treatment-seeking gamblers from the non-problem gamblers. These were gambling related arousal and achievement associated with gambling.

In line with the literature on arousal (Anderson and Brown 1984; Coventry and Norman 1997) arousal was a common response to gambling for all the individuals. The extent of arousal experienced did not appear to be related to the reported persistence of gambling. Similarly, the reported experience of achievement through the perceived skill associated with gambling was more evident among the non-problem sample than it was among the treatment-seeking sample. Given the emphasis within the cognitive model of Ladouceur and Walker (1996) on the misunderstanding of aspects of skill in gambling as indicative of problems this is interesting. It was apparent from the non-clinical sample that the skill focus was an important element of the enjoyment of gambling, but was accompanied by a realistic view of the outcomes of gambling. That is, the non-problem gamblers were aware that they were likely to lose, but reported a focus on skill as a means of reducing losses and adding to the entertainment. This may represent an ability to hold more than one perspective on the behaviour.

Two other differences between the treatment-seeking sample and the non-problem sample were the extent to which gambling was reported as entertaining, and the extent of tolerance of costs reported. Enjoyment of gambling was more commonly reported among the non-problem group, and a lower tolerance of costs was reported by that group. These issues appeared to be mediated by the extent to which the problem gamblers were using gambling to manage negative emotional states and in an attempt to win back money. Higher levels of costs were tolerated in the context of a perceived inability to change the behaviour even if they wished to do so by the treatment-seeking gamblers. The differential response to the costs of gambling is in line with the social impact aspects of the DSM IV pathological gambling criteria (APA 1994).

Treatment implications

The results from the single case experimental design indicate that a multi-component cognitive behavioural approach to pathological gambling was ineffective in altering to a clinically significant extent the gambling difficulties of the treated sample. The cue exposure element (Echeburua et al 1996) of treatment appeared to have a specific additional effect on gambling behaviour and gambling urges for two individuals. This could indicate the benefit of introducing this element of treatment earlier in therapy, but in the absence of the application of this approach alone, it is not possible to identify whether it would be effective in the absence of the therapy that preceded cue exposure. There are indications from the treatment studies reviewed in Section One that simpler, single strand treatments may be more effective (McConaghy et al 1991; Echeburua et al 1996; Sylvain et al 1997; Ladouceur et al 1998), including those that have evaluated stimulus control followed by cue exposure (Echeburua et al 1996; Echeburua et al 2000). There is also an increasing body of research supporting the use of single strand interventions within cognitive behavioural psychotherapy more generally, both alone and as part of a stepped care approach to treatment (Lovell and Richards 2000; Otto, Pollack and Maki 2000; Sobell and Sobell 2000).

The findings of the grounded theory studies provide some indications regarding the development of treatment. Specifically treatment could be developed to target the identified variables that differentiate problem from non-problem gamblers. These were emotion management skills to manage negative emotions, beliefs regarding winning money back when losing and perception of control.

Given the centrality of gambling as emotion management to the grounded theory, the importance of negative mood states in the maintenance of, and relapse into, problem gambling is supported (Sharpe and Tarrier 1993; Griffiths 1995b). This would indicate the need for skills training in emotion management strategies other than gambling. Specific examples reported by the non-problem gamblers were engagement in alternative activities, use of social support, and problem-solving strategies. A problem-solving approach targeting personally identified situations associated with negative emotional states would be one means by which to address this issue, in a similar way to the approaches that have

been used with deliberate self-harm (McLeavey, Daley, Murray, O’Riordan and Taylor 1987; Hawton and Kirk 1989). The use of stimulus control strategies to disrupt the pattern of repeated gambling in response to emotional distress that is commonly reported by the treatment-seeking gamblers would appear an appropriate first stage in such an intervention (Sharpe and Tarrier 1992; Fairburn et al 1993; Echeburua et al 1996). This would allow the individual the space to begin to develop the emotional problem-solving abilities identified.

The importance of beliefs regarding winning money back provides a context in which to understand and refine the cognitive treatments reported by the Ladouceur group (Bujold et al 1994; Ladouceur et al 1994; Sylvain et al 1997; Ladouceur et al 1998). A cognitive correction intervention focusing on the over-estimation of skill and the misunderstanding of the independence of events within a random sequence would be appropriate for individuals where chasing losses was a feature, given the relationship between beliefs regarding winning money back and persistence of gambling. The specific focus would be on verbalisations regarding skill resulting in regaining losses, rather than on skill as an element of the entertainment of gambling.

The importance of perception of control provides a clear rationale for the use of cue exposure to gambling related triggers as a self-efficacy raising procedure, rather than within a habituation model (Greenberg and Rankin 1982; Sharpe and Tarrier 1992; Echeburua et al 1996; Symes and Nicki 1997). As noted with the training in emotion management strategies above, this could usefully follow a period of stimulus control (Sharpe and Tarrier 1992; Fairburn et al 1993; Echeburua et al 1996) to disrupt the pattern of repeated gambling and the effects of this on gambling related self-efficacy (Bandura 1977).

The extent of overlap between high frequency non-problem gamblers and problem gamblers highlights the issue of labelling and ambivalence. Gambling is a legal leisure activity which generates strong arousal (Coventry and Norman 1997), provides a sense of achievement resulting from the commonly over-estimated extent of skill involved (Ladouceur and Walker 1996), and provides reinforcement in the form of a variable frequency reinforcement schedule of financial wins (Anderson and Brown 1984). Unsurprisingly, treatment-seeking individuals may view themselves as more similar to

their gambling peers than different from them. A focus exclusively on gambling as a problem, rather than as both a problem and a leisure activity is likely to lead individuals not to seek assistance in the first place, and to refuse treatment when offered (Hodgins and el-Guebaly 2000). An understanding by clinicians of the experience of 'normal' gambling can assist in working collaboratively with individuals experiencing difficulties with the behaviour. Ambivalence about change, and the low take-up of treatment services (Hodgins and el-Guebaly 2000) can be understood within this context.

Research

Implications for further research deriving from this study can be split into issues related to clinical, psychological and methodological aspects.

Clinical issues relate to evaluation of the treatment implications deriving from the study. Firstly, a study could be undertaken on a case series identifying whether treatment-seeking gamblers can be assessed regarding the features identified within the grounded theory. This would include specifying the emotion management function(s) which gambling is serving for each individual, the costs of gambling, the individual's perception and experience of control, the individual's beliefs regarding winning, and the availability of other emotion management strategies.

Following, or linked to such a study, the effectiveness of focused interventions for selected samples of treatment-seeking gamblers could be evaluated. Examples would be interventions focusing exclusively on enhancing emotion management strategies, focusing exclusively on beliefs regarding winning money back or on perception of control using the treatment strategies proposed above.

Linked to outcome evaluations, the predictions that positive treatment outcomes will be associated with an increase in the range and effectiveness of emotion management strategies, and enhanced perception of the strength and stability of control could be evaluated. This would require the further operationalising of the concepts. In addition to a link between change on these constructs and outcome at discharge, it would also be hypothesised that the constructs would have a predictive function regarding relapse

following treatment. The effect of non-cognitive behavioural treatments on these same constructs could be evaluated.

Psychological aspects of the grounded theory could be tested in populations of regular gamblers. These would include the hypothesis that pathological gamblers will have relatively poor emotion management skills to manage negative emotions in contrast to regular non-pathological gamblers. More specifically, problem-solving competence (Platt, Spivack and Bloom 1975; McLeavey et al 1987; Hawton and Kirk 1989) would be hypothesised to be poor amongst problem gamblers in contrast to regular non-problem gamblers. Initially a cross-sectional cohort study (Cooke 1989) could be utilised to test these hypotheses.

The relapse profile for problem gamblers could be a useful source of information to test the grounded theory. The hypothesis would be that the problem gamblers would report emotional triggers at the point of breakdown of periods of control over gambling behaviour. The study of relapse processes reported by Cummings, Gordon and Marlatt (1980) represents an example of this type of study. In addition the extent of repeated loss of control would be expected to be associated with low levels of self-efficacy (Bandura 1977; DiClemente, Prochaska and Gibertini 1985; Annis and Graham 1988) with regard to controlling gambling behaviour, particularly in the context of negative emotional states.

A further issue that would relate both to clinical and psychological research is that of predictive factors in the development of problem gambling amongst “at risk” groups of regular gamblers. The grounded theory developed within this study would predict that a measure of emotion management skills, including but not limited to problem-solving competence (Platt et al 1975) would be able to identify gamblers who would be most likely to later develop difficulties with control of gambling. Given the range of other intervening variables, this would require a large sample of regular gamblers to be followed up longitudinally, utilising a prospective cohort study approach (Cooke 1989).

Methodological issues deriving from this study relate firstly to the benefits of combining a single case experimental design with replications (Kazdin 1982; Barlow and Hersen 1984) with a grounded theory approach (Glaser and Strauss 1967; Strauss and Corbin 1990). This

has allowed for the elaboration of qualitative issues within the outcome study, and also provided a context of measurement for discussing the product of the grounded theory analysis. The two approaches appear complimentary, and their increased use within cognitive behavioural psychotherapy research is likely to further the theoretical development of the field as it would allow for the systematic evaluation of process variables, without reliance on quantitative measures of process.

Secondly, the postpositivist approach to grounded theory (Pidgeon and Henwood 1997; Lincoln and Guba 2000) taken within this study has much in common with the approach within cognitive behavioural psychotherapy to the development and evaluation of models of common disorders is important (Gelder 1997). The shared focus on movement from observation to theoretical propositions and back again highlights the potential wider utility of the grounded theory approach (Glaser and Strauss 1967; Strauss and Corbin 1990) in the systematic development and provisional verification of theory within cognitive behavioural psychotherapy.

The use of a deviant sample in this study for confirmatory purposes was a valuable process, indicating the benefits of the sequencing of grounded theory studies within a postpositivist paradigm (Strauss and Corbin 1990; Pidgeon and Henwood 1997).

The National Gambling Review recommendation 156 is that:

Research is carried out to understand the nature of normal, responsible, gambling behaviour; and research is carried out to understand the development of, and risk factors for, problem gambling. (Department for Culture, Media and Sport 2001 p.200)

This study rises to this challenge, and has provided information that could not readily have been accessed by the use of a quantitative study. Within health related grounded theory studies there are clear benefits of combining the study of clinical and non-clinical populations so as to better understand the features that distinguish those populations.

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APPENDICES

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Appendix A.

GAMBLING TREATMENT RESEARCH.

CLIENT INFORMATION SHEET.

What is the purpose of the study?

New treatments for people having problems with gambling are being developed. You are being asked to take part in a small research project looking at the effectiveness of one of these treatments.

What will be involved if I agree to take part in the study?

Treatment will start in approximately six weeks time. The treatment you will receive as part of the study is the same as that you will receive if you decide not to take part, except for the following points:

- 1) During the six week period before starting treatment you will be asked to complete a gambling diary daily.
- 2) During the six week period before starting treatment you will be expected to attend Brunswick House each week to complete a number of forms and return your gambling diary. You will be given £3 per session for travelling expenses for these sessions.
- 3) During the treatment you will be expected to return your gambling diary and complete some forms at the beginning of each session. This will add approximately twenty minutes to each session.
- 4) Some treatment sessions will be audiotaped.
- 5) You will be asked to attend four appointments during the year after the end of treatment, and may be contacted after that time to review long-term outcomes.

Can I withdraw from the study at any time?

Yes. You are free to refuse to take part in the study, and may withdraw at any time.

Withdrawal from the study will not prevent you from continuing with your treatment.

Will the information obtained in the study be confidential?

Yes. Information will not be passed on to anyone else regarding the research in any form which could be identified as relating to you. Any articles for publication will be written in such a way as to make it impossible to identify you.

Will anyone else be told about my involvement in the study?

Your family doctor will receive information about your treatment as normal, and will be informed you are taking part in the study.

Who is the researcher?

The researcher's details are: Tom Ricketts, Behavioural Psychotherapist, Brunswick House, 299 Glossop Road, Sheffield, S10 2HL. Tel.(0114) 271 6890

If during the study you have any problems, talk first to the researcher. If you do not find this satisfactory, please contact his manager, who is: Dr. R. Haddock, Manager, Specialist Psychotherapy Service, Brunswick House, 299 Glossop Road, Sheffield, S10 2HL.
Tel.(0114) 271 6890

RESEARCH CONSENT FORM	
TITLE OF PROJECT: GAMBLING TREATMENT RESEARCH.	
The patient should complete the whole of this sheet himself/herself	Please cross out as necessary
Have you read the Patient Information Sheet?	YES/NO
Have you had an opportunity to ask questions and discuss this study?	YES/NO
Have you received satisfactory answers to all of your questions?	YES/NO
Have you received enough information about the study?	YES/NO
Who have you spoken to? Dr/Mr/Mrs Do you understand that you are free to withdraw from the study: <ul style="list-style-type: none"> • at any time • without having to give a reason for withdrawing • and without affecting your future medical care 	YES/NO
Do you agree to take part in this study?	YES/NO
Signed.....Date.....	
(NAME IN BLOCK LETTERS).....	

Appendix B. GAMBLING BEHAVIOUR DIARY

Week Commencing	Gambled? Y/N	Total Time Hrs. Mins.	Won/Lost W/L	£
Monday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Tuesday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Wednesday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Thursday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Friday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Saturday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				
Sunday 6 am - 2 pm 2 pm - 10 pm 10 pm - 6 am				

GUIDELINES FOR COMPLETION OF THE GAMBLING BEHAVIOUR DIARY.

Complete the diary daily. Please be truthful and accurate. The information will not be disclosed to anyone else.

In column 2, for each eight hour period indicate whether you gambled. If No, leave the other columns blank. If Yes, in column 3 give the amount of time you spent in the gambling environment during that eight hour period, in hours and minutes.

If Yes, in column 4 indicate whether you Won or Lost money. Give the exact amount Won or Lost in column 5.

Where an episode of gambling runs over more than one eight hour period, indicate this on the form. If necessary just give the total amount Won or Lost over the whole episode of gambling.

GUIDELINES FOR COMPLETION OF THE GAMBLING URGES DIARY.

The purpose of monitoring is to provide a detailed picture of factors affecting your gambling. It is central to treatment. At first working out what information to put in which column may seem difficult and time-consuming. However, it will soon become easier, and the usefulness of the information will be clear.

The monitoring sheet should be completed every time you notice an urge to gamble, **whether or not** you go on to gamble.

Column 2. is to monitor your gambling urges. It is divided into two parts. Strength is on a 0-8 scale as shown below. You should record the strongest level of urge experienced.

0	1	2	3	4	5	6	7	8

No		Slight		Definite		Marked		Worst
Urge		Urge		Urge		Urge		Urge

The Duration of the urge is from when you first notice the urge until it has passed completely, whether you gambled or not. Use Hours and Minutes.

Column 1. is for noting briefly the situation you were in when you noticed the gambling urge. Identify people, places and events. Also put the date and time of the urge starting in this column.

Column 3. is for identifying thoughts accompanying the urge to gamble.

Column 4. called coping strategies is for you to identify how you tried to deal with the urge to gamble, whether or not you were succesful in not gambling. Include here such things as arguing with yourself about gambling, or leaving the area, or doing something else instead.

Column 5. is for identifying what the outcome of experiencing the urge and your coping strategies was. Include here whether you gambled or not, whether you felt in control or not, and any other information you consider relevant.

TREATMENT PROGRAMME.

The intervention to be utilised is based on the review of the treatment literature. The cognitive behavioural model of problem gambling underpins all approaches. The following techniques will be utilised in the intervention. There will be some variability in the length of time each approach is utilised, based on individual differences in the client's ability to internalise the information.

Treatment will consist of 15 sessions over no more than 22 weeks. Sessions 1-12 will be at weekly intervals, sessions 13, 14 and 15 will be at fortnightly intervals, excepting holidays and sickness.

SESSION 1.

Motivational Interviewing (Miller and Rollnick 1991).

The focus of this session will be on discussing the client's intentions with regard to their

gambling behaviour, in the context of a motivational interviewing approach. The purpose of motivational interviewing is to move the client from a position of ambivalence to one where they have a clear commitment to the change process. Five broad principles underpin the approach as developed by Miller and Rollnick (1991).

These are:

- 1) To express empathy.
- 2) To develop discrepancy.
- 3) To avoid argumentation.
- 4) To roll with resistance.
- 5) To support self-efficacy.

Session 1 will seek to build the clients motivation for change through therapist use of the

following techniques:

- 1) Open ended questions relating to the client's reasons for seeking treatment.
- 2) Specific questions relating both to the positive and problematic aspects of gambling behaviour.
- 3) A reflective approach within which client statements of ambivalence are summarised back to the client, with emphasis on reflecting all client generated self-motivational statements. Eg "I've really got to get on top of this problem now."
- 4) The use of explicit statements presenting the view of the gambling behaviour as an understandable choice being made by the client.
- 5) The use of positive statements regarding the courage the client has shown in deciding to attempt change at this time.
- 6) Use of summaries throughout the first session, with a final summary at the end of the

session. These include the highlighting of the range of views expressed by the client, whilst repeating back to the client again the self-motivational statements they have made.

Homework tasks.

Self-monitoring (Kirk 1989).

Triggers, Urges, Cognitions, Coping strategies, Behaviour.

At session 1 the idea of utilising self-monitoring of gambling urges, cognitions, and

behaviour will be introduced. The gambling urges diary will be given to the client, together with the guidelines for completion. An example will be completed together with the client. Included in the gambling urges diary is opportunity to record coping strategies which the client utilises. Self-monitoring will continue throughout the fifteen sessions.

At session 1 the client will be given the Life History Questionnaire. This contains a number of background information questions (medical history, family, social information), together with a Main Problems section aiming at building on the motivational interviewing approach used in session 1. This section requires the client to reflect on the development, current nature and impact of their gambling problem, together with questions relating to good/bad points about gambling and desired treatment outcome.

SESSION 2.

Feedback on homework.

As with all subsequent sessions, the first thing that will be discussed at session 2 is homework. The Life History Questionnaire will be collected, and scanned briefly by the therapist. Any failure to complete sections will be identified, in a questioning manner. The gambling urges diary will also be reviewed, with questions regarding any difficulties with completion, any confusions being clarified. Discussion will centre initially on the process of completing the diaries, and then issues highlighted for the client by completion.

Assessment (Kirk 1989).

A broad based assessment will be undertaken at this session. Information from the life history questionnaire regarding the development of problems with gambling will be expanded upon. A detailed identification with the client of their total gambling over the six month period before treatment will occur at this session. In addition, alcohol use, prescribed and non-prescribed drug use, and any link with gambling behaviour will be assessed at this point.

Motivational Interviewing (Miller and Rollnick 1991).

The approach utilised once assessment information has been gathered will once again be motivational interviewing. The techniques identified above for session 1 will be utilised, focussing on the assessment information and information from the Life History Questionnaire and the urges diary. In addition, techniques from what Miller and Rollnick (1991) call Phase II of motivational interviewing will be introduced. These include:

- 1) The use of a transitional summary. This involves summarising again the range of views the client has presented. It will include the client's own perceptions of their problem, and a statement of their ambivalence, including what still seems positive or attractive about gambling. In addition a restatement of the objective impact of gambling on the client is made, together with a restatement of the indications the client has made of their wanting to change.
- 2) Asking the client what they want to do, in the light of the information given in the transitional summary.
- 3) The reflection of statements indicating client commitment to change.
- 4) The agreement of a problem statement or statements will follow these approaches.

Where the client continues to express high levels of ambivalence throughout session 2, and is making limited numbers of self-motivational statements, Phase II strategies may not be used in session 2, but will be used in session 3.

Homework tasks.

The client will be asked to continue to utilise the gambling urges diary. The client will also be asked to complete a targets sheet before session 3. This will be presented as "At the end of treatment what would you like to be able to do, which is different from what you are able to do now?"

In addition, clients who completed the Main Problems section of the Life History Questionnaire in a limited way will be asked to take the Life History Questionnaire away again, and complete it more fully

SESSION 3.

Feedback on homework.

The gambling urges diary will be reviewed with the client, with increased focus on the coping strategies section.

The target sheet will form the basis of discussion regarding individual targets for the client. Targets will be stated in positive, specific terms. They may include a limited gambling target.

Education about the cognitive-behavioural model of gambling problems. The client will be provided with written and verbal information, tailored to their particular circumstances at this session.

Stimulus control measures (Dickerson and Weeks 1979), tailored to the individual's identified cues to gambling, such as amount of money on their person, vicinity of gambling environments. These will be introduced as a helpful short-term strategy to assist with limiting gambling behaviour until other coping skills have been developed.

Introduction of alternative pleasurable activities (Sharpe and Tarrier 1992). Planning will take place at this session, and will be followed up at subsequent sessions regarding the client identifying activities which they can utilise as an alternative to gambling. The client will be encouraged to undertake these on a regular basis.

Homework tasks.

The client will be asked to continue to utilise the gambling urges diary. In addition they will be asked to attempt to apply the stimulus control measures and undertake alternative activities as outlined above.

An assessment report will be produced following this session, identifying the factors leading to the development of the clients difficulties, factors resulting in the maintenance of the behaviour, and details of the plan of treatment. A copy will be made available to the client, in addition to the referrer and RMO.

SESSION 4.

Feedback on homework.

The gambling urges diary will be reviewed with the client, with particular focus on both the coping skills section and the thoughts section. The application of stimulus control measures will be reviewed, within a problem solving approach. The extent to which planned activities were undertaken will be reviewed, linking this to urges to gamble and gambling behaviour.

Cognitive restructuring (Beck et al. 1979).

The client will be introduced to the specifics of the cognitive restructuring approach at this session. The main elements presented will be:

- 1) The development of assumptions, and their role in producing automatic negative thoughts and cognitive processing errors.
- 2) Automatic negative thoughts- their features and effects. Examples will be used from the client's gambling urges diaries.
- 3) Cognitive processing errors - why they are important. Examples.
- 4) The stages of learning to restructure cognitions.

Homework.

A handout regarding the cognitive restructuring approach will be provided at this session. The client will be asked to read this on at least one occasion before the next session. The gambling urges diary will continue to be utilised, with the client being asked to try to identify their automatic negative thoughts associated with urges to gamble.

Stimulus control measures and planned pleasurable activities will continue.

SESSION 5.

Feedback on homework.

The gambling urges diary will be reviewed with the client, with particular focus on both the coping skills section and the thoughts section. The application of stimulus control measures will be reviewed, within a problem solving approach. The extent to which planned activities were undertaken will be reviewed, linking this to urges to gamble and gambling behaviour. Any questions arising from the client's reading of the cognitive restructuring handout will be answered.

Cognitive restructuring (Beck et al. 1979).

The focus of this session will be on client identified automatic negative thoughts, highlighted through discussion and recording on gambling urges diaries. A Socratic questioning approach will be utilised, with the development of alternative thoughts, evidence based judgement being emphasised, and the devising of behavioural experiments. Behavioural experiments will be presented as opportunity to gather evidence regarding Automatic negative thoughts and alternatives proactively. Common types of automatic negative thoughts which may be focussed upon would include thoughts regarding:

- making money from gambling, or recovering previous losses;
- skill regarding the individual's preferred forms of gambling;
- not gaining pleasure from anything other than gambling - "deserving a bet";
- being unable to control gambling behaviour;
- Self-denigratory thoughts regarding gambling.

Homework tasks.

The client will be asked to continue to utilise the gambling urges diary, with particular emphasis on the identifying of "problem thoughts" associated with gambling. They will be asked to undertake behavioural experimentation based on the outcome of the cognitive restructuring. Examples would be "testing" their gambling system without actually gambling, actively engaging in new activities, or the gradual reintroduction of previous cues to gambling.

Stimulus control measures and planned pleasurable activities will continue.

Education of the client's spouse, or significant other, regarding the cognitive-behavioural model of gambling problems and the client's treatment will occur by agreement with the client between sessions 5 and 8.

SESSIONS 6-9.

Feedback on homework.

The gambling urges diary will be reviewed with the client, with particular focus on both the thoughts section, and the coping skills section. The utilisation and effects of behavioural experimentation with regard to "problem thoughts" will be reviewed. The continuing use of stimulus control measures and planned activities will be reviewed.

Cognitive restructuring (Beck et al. 1979).

The focus of these sessions will be on client identified automatic negative thoughts regarding gambling. A socratic questioning approach will be utilised, with the development of alternative thoughts, and evidence based judgement being emphasised, and the devising of behavioural experiments. Areas of concern identified above may be the focus of this work, or other gambling urge related thoughts which the client is reporting.

Homework tasks.

The client will be asked to continue to utilise the gambling urges diary, with particular emphasis on the identifying of "problem thoughts" associated with gambling. They will be asked to undertake behavioural experimentation based on the outcome of the cognitive restructuring as outlined above.

SESSIONS 8-11.

Cue-exposure with response prevention (Greenberg and Rankin 1982).

Within the context of discussion of client identified automatic negative thoughts relating to an inability to control their behaviour, cue exposure will be introduced as a behavioural experiment. This will involve the planned reintroduction of all identified cues to gambling, in a graded manner, whilst the client is assisted to not gamble. Initial sessions will include the client being accompanied by the therapist as they enter gambling environments (eg arcades, bookmakers) without gambling. Accompanied cue-exposure will involve the client monitoring his / her urge to gamble in gradually more difficult situations. For example, grading may include standing outside of a bookmakers together, standing inside together, then alone, looking at the racing information, and selecting horses, up to writing out a bet, having the money in hand, and watching the race without having placed the bet. Learning from the session should be emphasised, and therapist accompanied sessions followed by self-directed cue exposure. Self-directed cue exposure will involve the gradual reintroduction of all

previously avoided cues to gambling (the dismantling of stimulus control strategies), in addition to the client undertaking cue-exposure to gambling environments alone. The client should refrain from gambling whilst undertaking cue-exposure.

SESSIONS 11-13.

Problem-solving training (Hawton and Kirk 1989).

Problem-solving training will be introduced towards the latter part of treatment for most clients. However, if significant problem-solving deficits are evident, it may be introduced earlier. Problem-solving training will focus on teaching the client skills in defining problems, identifying goals, planning stages to move towards those goals, and evaluating progress towards identified goals. The emphasis is on enabling the client to develop transferable skills, rather than simply dealing with current problems. To develop problem-solving skills, the approach is applied to a small number of identified current difficulties together, and then the client is encouraged to generalise the approach to additional difficulties.

SESSIONS 13-15.

Relapse prevention techniques (Marlatt and Gordon 1985).

The relapse prevention focus runs throughout the programme of therapy. At the end of therapy however, the purpose of the specific relapse prevention technique is to increase client awareness of likely triggers to return of gambling, and reduce the tendency to view a single episode of uncontrolled gambling as a relapse, rather than as a lapse which can be recovered from. This will involve the client reviewing what strategies they have utilised in therapy, identifying specific triggers which are likely to be associated with an increase in urge to restart gambling in an uncontrolled fashion for them, and the preparation of a "maintenance sheet" outlining steps to take in the case of a lapse. The maintenance sheet will include steps such as temporarily reintroducing stimulus control strategies, enlisting the assistance of a friend or spouse, and noticing and challenging unhelpful thinking following an episode of gambling. It will also emphasise the continuing availability of support from the therapist through the follow-up period, particularly in the case of increasing gambling.

FOLLOW-UP SESSIONS.

Follow-up sessions will be offered at one, three, six and twelve months following the end of active treatment.

ATTACHMENTS

- 1) Gambling urges diary and guidelines for completion.
- 2) Life History Questionnaire.
- 3) Problem sheet.
- 4) Target sheet.
- 5) Client education regarding problem gambling.
- 6) Introduction to cognitive restructuring.
- 7) Problem-solving format.

Gambling Urge Diary

SITUATION	URGE Strength Duration	THOUGHTS	COPING STRATEGIES	OUTCOME
		XVI		

GUIDELINES FOR COMPLETION OF THE GAMBLING URGES DIARY.

The purpose of monitoring is to provide a detailed picture of factors affecting your gambling. It is central to treatment. At first working out what information to put in which column may seem difficult and time-consuming. However, it will soon become easier, and the usefulness of the information will be clear.

The monitoring sheet should be completed every time you notice an urge to gamble, **whether or not** you go on to gamble.

Column 2. is to monitor your gambling urges. It is divided into two parts. Strength is on a 0-8 scale as shown below. You should record the strongest level of urge experienced.

0	1	2	3	4	5	6	7	8

No	Slight	Definite	Marked	Worst				
Urge	Urge	Urge	Urge	Urge				

The Duration of the urge is from when you first notice the urge until it has passed completely, whether you gambled or not. Use Hours and Minutes.

Column 1. is for noting briefly the situation you were in when you noticed the gambling urge. Identify people, places and events. Also put the date and time of the urge starting in this column.

Column 3. is for identifying thoughts accompanying the urge to gamble.

Column 4. called coping strategies is for you to identify how you tried to deal with the urge to gamble, whether or not you were succesful in not gambling. Include here such things as arguing with yourself about gambling, or leaving the area, or doing something else instead.

Column 5. is for identifying what the outcome of experiencing the urge and your coping strategies was. Include here whether you gambled or not, whether you felt in control or not, and any other information you consider relevant.

LIFE HISTORY QUESTIONNAIRE.

By completing these questions as fully as you can you will be helping us to get a more comprehensive picture of your background history, and how it relates to your current difficulties. All questionnaires, case records and rating scales are strictly confidential and will not be disclosed without your prior permission. If there is any question that you do not wish to answer please cross it out.

NAME.....

ADDRESS.....

.....

TELEPHONE.....

DATE OF BIRTH.....AGE.....

BY WHOM WERE YOU REFERRED?.....

NAME AND ADDRESS OF G.P.

.....

MAIN PROBLEMS.

Describe in your own words the nature of your problems and the duration of them.

Give a brief account of how your problems started and in what way they have developed until now.

MAIN PROBLEMS.

List any situations that make your problem worse.

List any situations that seem to help you control your problem.

Have you consulted anyone previously about your problems? (e.g. Doctor, Psychologist, Psychiatrist, Social Worker, Gamblers Anonymous)

List the benefits you hope to gain from treatment.

What would be the disadvantages of changing?

On the scale below please indicate the severity of your problems.

Mildly	Moderately	Very	Extremely	Totally
upsetting	severe	severe	severe	incapacitating

MEDICAL HISTORY.

List any illnesses, accidents or operations you had before 12 years of age:

List any illnesses, accidents or operations you had between 12 and 21 years of age:

List any illnesses, accidents or operations after 21 years of age:

When were you last examined by a doctor?

Do you have any special fears or phobias? Please give details.

List any kind of psychiatric treatment you have had (with dates):

Please state what medication, if any, you are taking at the moment:

What kind of alcohol, and how much do you use each week?

FAMILY.

MOTHER: Name.....Age.....Occupation.....

Health (If now deceased please give date and cause):

Brief description of personality:

FATHER: Name.....Age.....Occupation.....

Health (If now deceased please give date and cause):

Brief description of personality:

BROTHERS: Names and Ages:

SISTERS: Names and Ages:

Has anyone in your family had a similar problem to your own? Please give details, even if the problem is now resolved.

Does any member of your family suffer from mental health difficulties? Please give details.

PERSONAL.

Place of birth:.....

Height:..... Weight.....

At what age did you start school?.....

leave school?.....

Did you like or dislike school? Please give details.

Were you bullied or teased at school?

Did you pass any exams? Please give details.

Did you achieve any other qualifications? (e.g. degree)

Were there any factors which you view as having affected your progress as a child?

Current Occupation:

If employed, how long have you been in your present job?

Please list the jobs you have done previously, including dates.

SOCIAL ACTIVITY.

What kind of accomodation do you live in? Please circle:

House Hostel Bedsit Flat Hospital Other.....

Who lives with you at the moment?

What are your interests, hobbies and activities?

How is your leisure time occupied?

MARRIAGE AND FAMILY.

Please circle your present status:

Single Engaged Married Separated
Divorced Co-habiting Widowed

Partners name..... Age..... Occupation.....

If applicable, how long have you and your partner been together?

Are there any problems within your current relationship?

Do you have any children? Please give names and ages.

Are there any problems with your children that concern you?

Therapist.....

ET

ET

ET

ET

ET

ET

	0	2	4	6	8
IOUR	complete success	75% success	50% success	25% success	have not even made a start

	0	2	4	6	8
COMFORT	none	slight	definite	marked	very severe

IOUR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date.....
COMFORT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRE

IOUR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date.....
COMFORT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	POST

IOUR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date.....
COMFORT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1MFU

IOUR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date.....
COMFORT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6MFU

IOUR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	XXV	<input type="checkbox"/>	Date.....
COMFORT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1YRFU

PROBLEM GAMBLING: CLIENT INFORMATION.

The treatment you are receiving is based on a cognitive behavioural model of problem gambling. This model emphasises the importance of not just the behaviour of gambling, but also the thoughts and physical symptoms associated with it.

Problem Gambling in Action.

Figure 1. gives an outline of the cognitive behavioural model of problem gambling.

Triggers to gambling will vary, but often include having money available, money problems, stressful situations and mood states such as boredom and depression.

The urge to gamble is often accompanied both by physical sensations such as tension and restlessness, and problem thoughts, including why it would be a good thing to gamble.

Coping skills useful at this stage include the ability to calm yourself down physically, to challenge problem thoughts, to solve problems. and to identify alternative things to do.

Where the individual does not apply any coping skills, or the coping skills applied fail to redirect the individual away from gambling, gambling starts. Often, for the problem gambler, starting gambling results in an immediate sense of excitement, and further problem thoughts.

The act of gambling will lead either to winning or losing initially. In the case of winning, further physical changes, identified as excitement may occur, together with further problem thoughts. These will both increase the likelihood that the individual will continue to gamble.

In the case of losing, further physical changes may occur, these often being experienced as unpleasant. In addition problem thoughts may occur increasing the likelihood that the individual will continue to gamble.

Again, coping skills can be applied at this stage, to enable the person to stop gambling. Particularly relevant are skills at calming yourself down, and at challenging problem thoughts.

In the absence of these skills whether the individual wins or loses, further gambling is the likely outcome. If this continues long enough the inevitable outcome will be the eventual loss of all available money. Immediately following this loss, further physical changes often occur, generally perceived as unpleasant. Often there will be a lowering of mood, and further problem thoughts.

In the long term the results of continuing gambling losses are financial problems, social pressures and other problems, feeding back to become further triggers to gambling.

Treatment.

Treatment can be divided into four stages, although in practice there is overlap between stages, and variability between individuals.

- 1) Assessment.
- 2) Stabilising the behaviour.
- 3) Coping skills development.
- 4) Maintaining the changes.

1) Assessment.

The cognitive behavioural model outlined above is quite general. The first part of treatment is to assess how it fits you as an individual, and adapt the treatment to your particular needs. Both what has happened in the past, and, in particular, detailed information about your gambling behaviour, urges, thoughts and coping skills NOW are important. In addition, the early part of treatment asks you to think about why you are choosing to work on your gambling now.

2) Stabilising the behaviour.

Where you are still gambling frequently, the aim of the second part of treatment is to reduce how often gambling is occurring. This is done initially by working on triggers to gambling. By making things as easy for yourself as possible, some of the pressure can be taken out of the situation, at least temporarily. This then allows stage three treatments to be most effective.

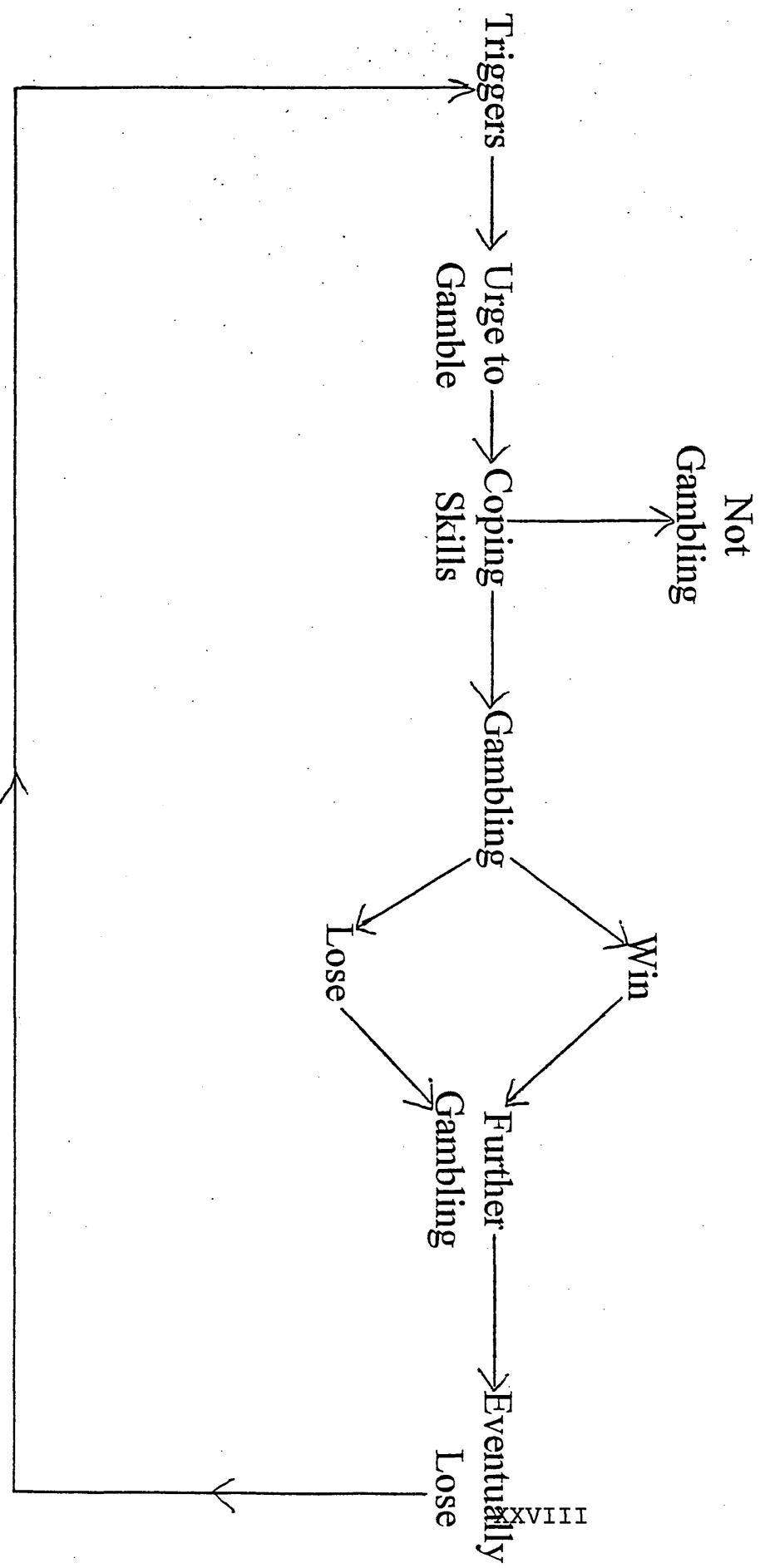
3) Coping skills development.

Getting into the habit of applying coping skills in response to urges to gamble or gambling behaviour is the purpose of this stage of treatment. Particular importance is given to developing the ability to question your thoughts, so as to correct problem thoughts. In addition, building skills at self-control in "risky" situations, learning how to calm yourself down, and improving your problem solving skills are included in this stage of treatment.

4) Maintaining the changes.

Learning how to maintain the changes made is the final part of treatment. In addition to thinking about what has been useful for you about treatment, specific plans are made about overcoming difficulties that are likely to arise. Follow-up appointments are offered over the year after the end of active treatment, to help you deal with any problems.

A Model of Problem Gambling.



COGNITIVE THERAPY.

Cognitive therapy is based on the theory that an individuals emotional states and behaviour are largely determined by the way in which they structure the world. Specifically:

- 1) That individuals are actively engaged in making sense of the world in terms of their own unique set of values, beliefs, expectations and attitudes, ie cognitions.
- 2) That these cognitions colour the picture the person has of their world. This applies not only to the present, but also to the past and future.
- 3) That changes in the individuals emotional state are directly due to the way they make sense of events. That is, it is not external reality which causes problems but the way the person interprets that reality.
- 4) That through cognitive therapy, the individual can learn to be aware of and then correct their problem thinking patterns.
- 5) That this correction will lead to changes in behaviour, physical symptoms and emotional states.

The cognitive model proposes two different levels of disturbed thinking. These are Problem Thoughts and Problem Assumptions.

Problem Thoughts.

These are thoughts or images which are present in specific situations when an individual is anxious, depressed etc. For example, someone concerned about what people think of them may have the problem thought that “they will think I’m boring”.

Problem Assumptions.

These are general beliefs which the individual holds about the world and themselves which lead them often to interpret situations in excessive, negative and unhelpful ways. Whilst leading to problem thoughts of a similar content, problem assumptions also lead to repeated thinking errors.

Examples of such thinking errors are:

a) All or nothing thinking:

Seeing things in black and white rather than in shades of grey (eg. because I haven’t succeeded completely I am a total failure).

b) Over-generalising:

Imagining that one bad experience means that you will always have a bad experience in such situations (eg. thinking that you will never be able to maintain a relationship because a particular relationship has broken down).

c) Catastrophising:

Assuming the worst possible thing is bound to happen in a situation you find difficult (eg. after gambling after a period of not gambling assuming this means that you will go back to being totally out of control).

d) Exaggerating:

Blowing things up out of proportion. reacting to a situation that is difficult or embarrassing as if it was a major disaster (eg. being extremely upset when, despite your efforts, someone close to you criticises how you are behaving).

e) Ignoring the positive:

Overlooking positive experiences and achievements because they “don't count” for some reason (eg. dwelling exclusively on how much better you could have done, despite having achieved the majority of what you set out to do that week).

f) Personalisation:

Taking responsibility for external events over which you have little or no control (eg. blaming yourself when people you know have problems similar to your own).

g) Emotional reasoning:

Viewing an emotional state as good enough evidence for the accuracy of a thought (eg. thinking that because you feel good that that means you are going to be lucky).

STAGES IN COGNITIVE THERAPY.

Cognitive therapy can be split into four stages. These are:

- 1) Identifying your problem thoughts.
- 2) Generating alternative ideas.
- 3) Testing your problem thoughts.
- 4) Changing problem assumptions.

1) Identifying your problem thoughts.

Noticing what we are thinking is not a skill that many of us have. Often we may notice a change in our emotional states without being aware of the thought associated with this change. The first stage in cognitive therapy is to practice the skill of noticing thoughts, particularly those associated with urges to gamble. Most people find that particular problem thoughts occur again and again. These are particularly important to identify.

2) Generating alternative ideas.

Once problem thoughts have been identified the next stage is to develop alternative ideas. At first this will be a team effort with your therapist. He will help you to practice standing back from problem thoughts, and identifying other ways of viewing the situation. At this stage it is important to remember that there are always lots of different ways of looking at the same situation.

3) Testing your problem thoughts.

Once the problem thought and alternatives have been identified the next stage is to test the thoughts out. You are encouraged to see your thoughts as ideas which may or may not be true. The best way to test out these ideas is to look at the EVIDENCE. You may already have a lot of evidence regarding the thoughts which you have not considered previously. In addition, you may be able to identify behavioural experiments which you can do to gather more evidence. Again, your therapist will help you with this process at first.

4) Changing problem assumptions.

Once you get skilled at identifying problem thoughts, generating alternatives and testing your problem thoughts, the next stage is to apply some of the same approaches to problem assumptions. Often assumptions become clear as a result of working on problem thoughts. Similar issues needing to be dealt with repeatedly are often a clue to assumptions, as are thinking errors. Again your therapist will help you with this process at first.

As you can see, you will be developing a number of skills through practicing this approach. It is important to keep in mind that the purpose of all the approaches is to enable you to change behaviours which are causing you difficulty, and to reduce the distress associated with the behaviours.

PROBLEM SOLVING

STEP 1: WHAT IS THE PROBLEM?

You may be able to identify a number of problems, each of which may need tackling. However, at this stage it is important to select one problem to be worked on first.

STEP 2: IDENTIFY YOUR GOALS.

Goals need to be specific and realistic. Sometimes you may need to consider all possible goals before deciding on the best ones. See PAGE 3.

(1) _____

(2) _____

(3) _____

(4) _____

STEP 3: PLAN THE STAGES NECESSARY TO ACHIEVE YOUR GOALS.

Sometimes only one step is needed. For more complex problems however, it is useful to break the process down into achievable stages.

STEP 4: DECIDE ON THE INITIAL TASKS.

Getting started is the next important step. Deciding on the tasks necessary to achieve the first stage, and doing it is the next step.

STEP 5: REVIEW PROGRESS.

Set a review date, and review progress at this point. Often undertaking the first stages will be succesful. However success may be partial, or the approach may not work. Identify what has been learnt, and what modifications to the plan are needed.

IDENTIFYING GOALS.

STEP 1: LIST ALL POSSIBLE GOALS

Put down all ideas, even bad ones.

(1) _____

(2) _____

(3) _____

(4) _____

(5) _____

(6) _____

STEP 2: DISCUSS EACH POSSIBLE GOAL

Go down the list of possible goals and discuss the advantages and disadvantages of each.

STEP 3: CHOOSE THE BEST GOAL OR COMBINATION OF GOALS

Cognitive behavioural treatment of pathological gambling**Treatment integrity monitoring**

Please identify the treatment approaches undertaken during the recorded treatment session, utilising the treatment programme attached for guidance. Also rate the session overall for clinical skill evidenced on the 0-8 scale at the bottom of the page.

Session details: Client: Session number: Session date:

Intervention	Observed?
Assessment of current gambling difficulties	
Assessment of gambling development and change over time	
Assessment of other issues	
Use of self-monitoring of gambling urges	
Homework review	
Motivational interviewing	
Stimulus control strategies	
Promotion of alternative pleasurable activities	
Cognitive restructuring	
Cue-exposure, planning or review	
Problem-solving training	
Discussion of relapse prevention strategies	
Other approaches (specify)	

Overall Clinical Skill

0	1	2	3	4	5	6	7	8
no		slight		fair		marked		extreme
skill		skill		skill		skill		skill

Cognitive behavioural treatment of pathological gambling

Treatment integrity monitoring

Please identify the treatment approaches recorded, utilising the treatment programme attached for guidance.

Session details: Client:

Session number:

Session date:

Intervention	Reported?
Assessment of current gambling difficulties	
Assessment of gambling development and change over time	
Assessment of other issues	
Use of self-monitoring of gambling urges	
Homework review	
Motivational interviewing	
Stimulus control strategies	
Promotion of alternative pleasurable activities	
Cognitive restructuring	
Cue-exposure, planning or review	
Problem-solving training	
Discussion of relapse prevention strategies	
Other approaches (specify)	

monitor.doc

Appendix F

SPECIALIST PSYCHOTHERAPY SERVICES

Brunswick House,
299, Glossop Road,
Sheffield.
S10 2HL
Tel. (0114) 271 6890

DATE

NAME AND ADDRESS OF RECIPIENT

Dear

As you were in the gambling treatment research, but have decided to end treatment, I am writing to ask one further thing of you. There are many different reasons why people decide to end treatment, all of which are perfectly acceptable. As part of the research, it would be extremely useful to know why you decided to end treatment. I have enclosed a brief questionnaire asking about your reasons for ending treatment. This information will be used to help try to improve the service other people with similar problems receive. Please be honest about your reasons.

Please return the questionnaire in the Stamped Addressed Envelope provided. I will send you a reminder on DATE-2WEEKS if I have not received a reply by that date.

Yours sincerely

Tom Ricketts.
Behavioural Psychotherapist.

ENDING TREATMENT QUESTIONNAIRE

Please find below a list of possible reasons why people stop coming to treatment sessions. Consider your own experience at Brunswick House and tick those which apply. If your reason for ending treatment is not shown, tick Other reason, and write in at the end.

Problem has been solved or improved to an acceptable level.

Needed to deal with the problem on my own.

Dislike of my therapist.

Dislike of the type of treatment.

Treatment was too difficult.

Pressure from family member to stop treatment.

Conflict with work hours.

Travel distance to Brunswick House.

Travel costs too high.

Transportation problems.

Other reason (please specify).

.....

.....

If you wish to make any comments about your treatment please do so here.

PATIENT INFORMATION SHEET

UNDERSTANDING GAMBLING PROBLEMS: CLIENT PERSPECTIVES

You are invited to participate in a study seeking to understand the range of views held by people seeking treatment for gambling related problems.

“Why have I been asked to take part in this study?”

Problems with gambling affect over one in a hundred people in Britain. There are various theories about why people develop difficulties with gambling. However, little is known about the views of people seeking help for gambling related problems themselves. The present study is seeking to fill this gap by interviewing people seeking help, and comparing the views of different people. The result will be detailed information about the range of views held. This will help clinicians to tailor treatment more closely to clients' needs in future.

“How long will the study last?”

The study will last twelve months. However, you will only be interviewed once or twice.

“What will it involve?”

If you agree to participate in the study you will be interviewed by the researcher. The focus will be on understanding the factors you think affect your gambling. You will be asked about issues affecting your ability to control your gambling, and the effect of gambling on different aspects of your life. In addition, the effects of gambling on how you feel will be a focus of the interview. The interview will last less than an hour, and you may be asked to return for a second interview at a later date. The interviews will be taped. You will also be asked to complete a questionnaire regarding gambling behaviour.

“What if I do not wish to take part?”

This will in no way affect your treatment.

“What if I change my mind during the study?”

You are free to withdraw from the study at any time without affecting your treatment.

“What will happen to the information from the study?”

All information will be entirely confidential. The tape of the interview will be stored in a locked cupboard, and destroyed once the study has been completed. The interview will be typed up, and then analysed, by the researcher. The results of the study will be written up to submit for publication. No information included in any report will identify you in any way.

“What if I have further questions”

You should contact the researcher:

Tom Ricketts, Behavioural Psychotherapy, Michael Carlisle Centre, 75 Osborne Road, Sheffield S11 9BF.

Tel. (0114) 271 8676

PATIENT CONSENT FORM

UNDERSTANDING GAMBLING PROBLEMS: CLIENT PERSPECTIVES

To be completed by the patient:

Have you read the information sheet about this study? **YES/NO**

Have you been able to ask questions about this study? **YES/NO**

Have you received answers to all your questions? **YES/NO**

Have you received enough information about this study? **YES/NO**

Who have you spoken to about this study?

Do you understand that you are free to withdraw from this study?

At any time

Without giving a reason for withdrawing

Without affecting your future medical care **YES/NO**

Do you agree to take part in this study? **YES/NO**

Are you involved in any other trials/studies? **YES/NO**

How many? ☐

Signed:

Date:

Name (*Block Letters*):

Therapist:

With effect from: September 1999

Appendix H
Example of the Code Book and Code Tree

Code Word	Parent	Text	Level	Added	Modified
ALCOHOL	CONTROL	YES	2	21/07/99	07/12/99
		Gambling after drinking.			
AVOID	CONTROL	YES	2	02/03/00	16/10/00
		Use of avoidance of gambling related triggers as a means of coping.			
BOOKIESCON	CONTROL	YES	2	22/09/99	22/09/99
		Control over gambling whilst in Bookmakers/ near slot-machines			
DON'T KNOW	CONTROL	YES	2	21/07/99	31/03/00
		Not knowing why he gambles.			
		XLI			
EXPECTED	CONTROL	YES	2	04/11/99	31/03/00
		That everyone else gambles, so it is expected that I will.			
FILLS MIND	CONTROL	YES	2	07/01/00	02/03/00
		Gambling being thought about continuously by the individual, even when not gambling.			
INDECISION	CONTROL	YES	2	04/11/99	02/03/00
		Changing mind about what to back, resulting in perception of "should have won".			
JUSTSOMUCH	CONTROL	YES	2	04/11/99	04/11/99
		Being able to gamble within limits, not just responding to triggers.			

Code Word	Parent	Text	Level	Added	Modified
MORE LIFE	CONTROL	YES	2	04/11/99	04/11/99

There being more to life than gambling. Other interests and preoccupations being present.

NOINTEREST	CONTROL	YES	2	22/09/99	22/09/99
------------	---------	-----	---	----------	----------

Experiencing a lack of interest in gambling related activities

OUTOFCNTR	CONTROL	YES	2	04/11/99	04/11/99
-----------	---------	-----	---	----------	----------

Gambling escalating out of control, taking all available money.

RECOVERY	CONTROL	YES	2	22/09/99	22/09/99
----------	---------	-----	---	----------	----------

Recovering from future loss of control

XLII

STOPTHINK	CONTROL	YES	2	22/09/99	04/11/99
-----------	---------	-----	---	----------	----------

Stopping and thinking before acting. A contrast to SLIGHTRIG

TRIGGERS	CONTROL	YES	2	21/07/99	31/03/00
----------	---------	-----	---	----------	----------

Wanting to gamble being triggered by events and emotional upsets affecting the person.

UNABLE	CONTROL	YES	2	21/07/99	22/09/99
--------	---------	-----	---	----------	----------

Being unable to stop by himself.

UP TO ME	CONTROL	YES	2	22/12/99	31/03/00
----------	---------	-----	---	----------	----------

Statements indicating that the individual considers that responsibility for change rests with themselves

Code Word	Parent	Text	Level	Added	Modified
USESUPPORT	CONTROL	YES	2	22/12/99	02/03/00
Uses talking to supportive others as a means of coping with problems					
VICIRCLE	CONTROL	YES	2	04/11/99	04/11/99
Getting stuck in a vicious circle where he borrows money to gamble to try to win back previous losses.					
FINANCIAL	COSTS		2	25/05/00	00/00/00
Financial effects of gambling, made up of losses and debts.					
RELATIONSH	COSTS	PAR	2	07/12/99	25/05/00
XLIII Gambling behaviour affecting the individuals relationships with other people. Includes relationships with employers and society in the form of the law.					
ACHIEVEMEN	EMOTION	YES	2	07/01/00	02/03/00
Gaining a sense of achievement from doing well at gambling.					
CONTENT	EMOTION	YES	2	23/03/00	31/03/00
Feeling contented, and enjoying the environment and atmosphere of a gambling venue.					
DEPRESSED	EMOTION	YES	2	21/07/99	07/12/99
Feeling depressed because of gambling.					
FASCINATIO	EMOTION	Yes	2	25/05/00	19/06/00
Experiencing gambling and the gambling environment as fascinating, interesting and entertaining.					

Code Word	Parent	Text	Level	Added	Modified
FED UP	EMOTION	YES	2	21/07/99	07/12/99
	Gambling because I am fed-up.				
FEEL ILL	EMOTION	YES	2	07/01/00	02/03/00
	Feeling physically unwell during and after gambling.				
GET MAD	EMOTION	YES	2	04/11/99	07/12/99
	Getting angry with self after losing money gambling. Involving calling self names, breaking things and shouting at others.				
GUILTY	EMOTION	YES	2	21/07/99	07/12/99
	Feeling guilty about gambling.				
	XLIV				
LOSECONFID	EMOTION	YES	2	23/03/00	31/03/00
	Losing confidence in him/her self more generally as a result of gambling.				
LOSER	EMOTION	YES	2	23/03/00	31/03/00
	The anticipation and experience of losing whilst still in the gambling environment.				
NOT FAIR	EMOTION	YES	2	04/11/99	07/12/99
	Thinking that expertise is overcome by those involved in racing "not trying", races being fixed.				
PROUD	EMOTION	Yes	2	04/05/00	04/05/00
	Feeling good about the changes he has made with regard to gambling				

Code Word	Parent	Text	Level	Added	Modified
SELFISH	EMOTION	YES	2	22/12/99	02/03/00
	Being selfish because of gambling.				
SHUT OFF	EMOTION	YES	2	22/12/99	02/03/00
	Mind shutting off from other things whilst gambling.				
TENSED UP	EMOTION	YES	2	04/11/99	07/12/99
	Feeling tensed up when trying not to gamble.				
THE BUZZ	EMOTION	YES	2	04/11/99	07/12/99
	The intense positive feeling engendered by the whole experience of gambling, particularly winning.				
WINNING	EMOTION	YES	2	21/07/99	07/12/99
	Gambling because he thinks he might win some money.				
DEBTS	FINANCIAL	Yes	3	25/05/00	25/05/00
	Gambling leading to the individual being in debt, borrowing money.				
LOSSES	FINANCIAL	Yes	3	25/05/00	25/05/00
	The individual reporting losing money as a result of gambling.				
CONTROL	None	YES	1	22/09/99	16/10/00
	Aspects of control and loss of control over gambling				

COSTS None 1 25/05/00 16/10/00

Parent code relating to the varied negative effects of gambling reported by clients, combining financial, relationship and emotional impacts. Emotional impacts currently subsumed under EMOTION.

EMOTION None PAR 1 07/12/99 00/00/00

Gambling as an emotional experience

CRIME RELATIONSH Yes 3 19/06/00 19/06/00

Reported criminal involvement / convictions as a means of getting money to gamble.

EFFECT CHI RELATIONSH YES 3 04/11/99 23/03/00

Effect on children of gambling and gambling related behaviour.

XLVI

EFFECT FAM RELATIONSH YES 3 22/12/99 02/03/00

Effect on family of gambling

EFFECT FR RELATIONSH YES 3 23/03/00 31/03/00

The effect on relationships with friends of gambling and associated behaviour.

EFFECT JOB RELATIONSH YES 3 22/12/99 02/03/00

Effect on work relationships and performance of gambling

EFFECT REL RELATIONSH YES 3 23/03/00 31/03/00

Effect on relationships with girl/boyfriends of gambling, and gambling related behaviour.

Code Word Parent Text Level Added Modified

Code Word	Parent	Text	Level	Added	Modified
LIKED	RELATIONSH	YES	3	04/11/99	31/03/00

People liking him a bit because of knowledge about gambling.

LYING	RELATIONSH	YES	3	21/07/99	07/12/99
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Being upset about lying about gambling.

EXPERT	WINNING	YES	3	04/11/99	31/03/00
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Considering self to be good at gambling, sharing this experience with others.

PICKING	WINNING	YES	3	04/11/99	31/03/00
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Picking horses, the process whereby expertise is developed and exercised.

● Code Families

● CONTROL
 — ALCOHOL
 — AVOID
 — BOOKIESCON
 — DON'T KNOW
 — EXPECTED
 — FILLS MIND
 — INDECISION
 — JUSTSOMUCH
 — MORE LIFE
 — NOINTEREST
 — OUTFCONTR
 — RECOVERY
 — STOPTHINK
 — TRIGGERS
 — UNABLE
 — UP TO ME
 — USESUPPORT
 — VICIRCLE

● COSTS

● FINANCIAL
 — DEBTS
 — LOSSES
 ● RELATIONSH
 — CRIME
 — EFFECT CHI
 — EFFECT FAM
 — EFFECT FR
 — EFFECT JOB

___ EFFECT REL
___ LIKED
___ LYING

● EMOTION
___ ACHIEVEMEN
___ CONTENT
___ DEPRESSED
___ FASCINATIO
___ FED UP
___ FEEL ILL
___ GET MAD
___ GUILTY
___ LOSECONFID
___ LOSER
___ NOT FAIR
___ PROUD
___ SELFISH
___ SHUT OFF
___ TENSED UP
___ THE BUZZ
● WINNING
___ EXPERT
___ PICKING

Re: Expanding RELATIONSH to COSTS of Gamb.

Code 1: COSTS Code 2: FINANCIAL Code 3: RELATIONSH

Type: Project Memo Category: Axial Coding

Memo #: 17

Date Created: Jun 19, 2000 9:47 By: TR

Date Modified: Jun 20, 2000 13:46

Returning more to the concept WHY CHANGE from the early analysis, it is clear that the effect on Relationships of gambling is only one aspect, and often not the most important aspect of the costs of gambling.

Three broad headings under COSTS can be identified: Financial, Relationships, and Emotional distress. It seems that only the latter of these three is actually likely to affect gambling behaviour, and that the effects of the other two are mediated by emoti

Here I am focussing on longer term costs, those that relate to the treatment seeking trajectory, rather than the more immediate emotional cycle dealt with in EMOTION

Financial Costs includes
LOSSES
DEBTS

Relationship Costs includes
EFFECT CHILDREN
EFFECT FAMILY
EFFECT FRIENDS
EFFECT RELATIONSHIPS
EFFECT JOB
LYING

and also CRIME, effecting the individuals relationship with society via the criminal justice system.

Emotional Costs include
DEPRESSED
FEEL ILL
GET MAD

GUILTY
LOSE CONFIDENCE
LOSER
SELFISH

Applying the paradigm to all three types of costs together is complicated, and possibly unnecessary. However, the previous paradigm as applied to the RELATIONSH category needs expanding, and the FINANCIAL and EMOTION costs clarifying.

Focussing initially on financial aspects:

Causal Conditions:

Repeated gambling

Properties:

Frequency: Rarely - Often

Style of gambling: Controlled - Uncontrolled

Phenomena:

Financial difficulties resulting from LOSSES and DEBTS

Properties:

Extent relative to income: Small % of income - Many x income

Intervening Conditions:

Employment Status (Will increase likelihood of money being available)

Access to money supply, including Loans, both Commercial and Personal

Beliefs regarding Winning

Extent of emotion altering effects of gambling

Action/Interaction Strategies:

Accessing available monies including Loans

Consequences:

Further gambling

Debts

These consequences then become further Causal Conditions:

Further Gambling

Debts

Properties:

Frequency: Rarely - Often

Style of gambling: Controlled - Uncontrolled

Phenomena:

Financial difficulties resulting from LOSSES and DEBTS

Properties:

Extent relative to income: Small % of income - Many x income

Intervening Conditions:

Employment Status

Access to money supply, including Loans, both Commercial and Personal

Beliefs regarding winning

Extent of emotion altering effects of gambling

Importance placed on financial probity by the individual

Opportunities to gain money illegally

Action/Interaction Strategies

Attempts at control of gambling

Accessing available monies, including Loans

Defaulting on debts

Lying

Criminal Behaviour

Consequences:

Successful control: Reduction in financial difficulties

Loss of control: Further gambling

Debts

Relationship difficulties (including criminal justice issues)

Emotional disturbance

Applying the paradigm to Relationships: See Project Memo 15

Applying the paradigm to Emotional Costs:

Causal Conditions:

Financial difficulties arising from gambling behaviour

Properties:

Extent relative to income: Small % of income - Many x income

Relationship difficulties arising from gambling behaviour

Properties:

Extent: Continuous - Occasional

Closeness: Close - Distant

Impact: Slight - Severe

Also see Losing as a direct (immediate) causal condition for emotional difficulties

Phenomena:

Emotional difficulties

Properties:

Valence: Positive - Negative

Duration: Short - Long

Intensity: Weak - Strong

Intervening Conditions:

Importance placed on financial probity by the individual

Importance placed on relationships by the individual

Perception of control of behaviour

Legal framework

Tolerance of emotional distress

Action/Interaction Strategies:

Attempts at control of gambling

Lying

Criminal behaviour

Further gambling

Consequences:

Successful control: Reduction in emotional costs, continuing relationship and financial difficulties

Unsuccessful attempt at control: Increased emotional, financial and/or relationship costs

Lying: Temporary reduction in relationship and emotional costs, medium term increase.

Criminal behaviour: Temporary ^{LIV}reduction in financial and

emotional costs, medium term increase in financial,
relationship and emotional costs.

Further gambling: See EMOTION paradigm

Re: Control, awareness and emotion

Code 1: Code 2: Code 3:

Type: File Memo Category:

Memo #: 2

Date Created: Oct 1, 1999 14:55 By: TR

Date Modified: Oct 1, 1999 14:55

Following C17 T(1) analysis.

In contrast to Project Memo 3 10/2/98, a number of new categories have arisen which do not readily fit into the 3 factors identified. These can be grouped into:

Control categories;

Being unable to stop by himself (UNABLE)

Slight triggers (SLIGHTRIG)

Awareness categories;

Not knowing why he gambles (DONT KNOW)

Emotional categories;

Feeling depressed (DEPRESSED)

Feeling guilty about gambling (GUILTY)

Being upset about lying about gambling (LYING)

Whilst the emotional categories link back to the why gamble (fed up (FED UP) and Work related problems (WORK PROBS)) factor, they are effects of gambling, not causes in these categories.

Re: Costs paradigm for C80

Code 1: COSTS Code 2: FINANCIAL Code 3: EMOTION

Type: Text Memo Category: Axial Coding

Line: 340A to 498

Date Created: Jun 24, 2000 13:36 By: TR

Date Modified: Jun 24, 2000 17:28

Costs paradigm linking control and emotional costs to the immediate financial costs.

Causal Conditions:

Repeated gambling:

Properties:

Frequency: Often

Style of gambling: Uncontrolled

Phenomena:

Loss of all money for the week, debts resulting from this

Context:

Extent of losses relative to income: 90 - 100% of income

Intervening Conditions:

Importance placed on financial probity: High

Action/Interaction Strategies:

Attempts at control of gambling

Defaulting on debts

Further gambling

Consequences:

Unsuccessful control

Debts

Hardship

Causal Conditions:

Financial difficulties resulting from losses:

90-100% of income

Phenomena:

Emotional difficulties: "It's been awful. I've nearly taken

my own life"

Context

Valence: Negative

Duration: Long

Intensity: Strong

Intervening conditions:

Importance of financial probity: Moderate

Tolerance of emotional distress: Low

Perception of control: Weak

Action/Interaction Strategies:

Attempts at control

Further gambling

Self-harm

Consequences:

Unsuccessful control:

Further emotional and financial costs

T: Yeah, right. You've talked a lot 340M
about sort of emotions and the 341
emotional aspect of it you know, 342
having the buzz, feeling excited, 343
feeling anxious, feeling tense. 344
That's something that other people 345
have mentioned to an extent. Are 346
there other emotional aspects to it as 347
well? 348

#-DEPRESSED #-OUTOFCONTR

C80: Yeah. There are times where it's 350 -#
got too much for me. I have felt like 351 |
taking my own life because of it. 352 |
Because I have felt that there is a 353 |
very strong control coming from 354 |
gambling. It takes over me. And when 355 |
I'm trying to fight it back it becomes 356 |
overpowering. 357 |

T: Right. 359 |

C80: And there's times when I have 361 |
tried to fight it before, it's been 362 |
too strong for me and then I've nearly 363 |
taken my own life. It's been awful. 364 -#

T: It sounds very upsetting, obviously 366
just to think about now but if I can 367
ask you a bit about that. I mean 368
would that be - you said the worst 369
feelings that you had when we were 370
talking earlier was after you'd 371
gambled and lost. 372

C80: Yeah. 374

T: Is that when you are more likely to 376
feel - 377

C80: Yeah it is yeah 379

#-DEBTS #-DEPRESSED #-LOSSES
LIX

T: About taking your own life. Does 381 -#
that feeling come at other times as 382 |
well? 383 |
|
C80: I think it's a lot stronger 385 |
afterwards. 386 |
|
T: Right. So what's the relationship 388 |
there do you think? 389 |
|
C80: I think it's because whenever I've 391 |
gambled and I've lost all my money and 392 |
I've have had then knowing full well 393 |
that I've had debts and what have you 394 |
to pay. And I've not got round to 395 |
paying them. Also I'm leaving myself 396 |
without food and things thatyou 397 |
normally get in life I've gone 398 |
without, you know, I've suffered 399 |
because of it. And it just felt to me 400 |
that I just hadn't got a life. 401 -#

T: Right. So at times it's been that 403
bad that after you have gone through a 404
pattern of trying not to do it, 405
getting excited, getting the sort of 406
buzz and going gambling, losing your 407
money, then afterwards, it's hit home 408
as you said about what you are not 409
going to be able to do and what you 410
are not going to be able to get. And 411
that's felt the times when you have 412
most been down and in despair to take 413
your own life. 414

C80: Yeah, that's right. 416

T: And what is it about that process 418
that's most associated with feelings 419
as bad as that? As you said, it's 420
obviously all the things that you 421

can't have and the quality of your 422
life and so on. Is there any 423
particular thing which hits home worst 424
at those times NAME? 425

#-DEBTS #-DEPRESSED #-LOSSES

C80: It's difficult to say really. All 427 -#
I know is, it's panic stations when I 428 |
have got home and I start thinking 429 |
about things. It's like too many 430 |
things just start going round in my 431 |
head. 432 |

T: Right. 434 |

C80: It's just panic stations. You 436 |
know, wondering who is going to come 437 |
to the door and knock you know. Whose 438 |
going to take me to court over what. 439 |
You know. It's all those kind of 440 |
things. 441 |

T: So those thoughts are the ones that 443 |
would be associated with being at 444 |
panic stations. 445 |

C80: Yeah. Threatening letters and 447 |
people coming to the door and that. 448 |

T: Yeah. And which thoughts would be 450 |
associated with you feeling really 451 |
down? 452 |

C80: Knowing that I've got no money for 454 |
the rest of the week. And I start 455 |
wondering what am I going to do for 456 |
the rest of the week now. 457 |

T: So it's thoughts about what's going 459 |
to happen in the immediate future and 460 |
how bad it's going to be. 461 |

C80: Yes. 463 |

T: Yeah. Anything else? 465 |

C80: Well yeah, there is really. 467 |
There's a lot of times where I've not 468 |
felt like getting out of bed. Just 469 |
not thinking about it. Just felt as 470 |
though I have got nothing to get up 471 |
for. 472 -#

T: So part of the not having any money, 474
not having anything to do, not having 475
anything to get up for, that's partly 476
associated with the moods. Okay. 477
Again, just sticking with that idea of 478
the emotional aspects of gambling, are 479
there any other emotions associated 480
with it for you, you said about the 481
tension, the anxiety, the excitement, 482
the buzz, the feeling very low, the 483
sort of panic stations stuff. Is 484
there any other emotions attached to 485
it for you? 486

#-DON'T KNOW

C80: Yeah. I think a lot about my past, 488M -#
why my parents don't want to talk to 489 |
me. Think about being a failure. Why 490 |
my marriage split up. It just feels 491 |
as though whatever I've done has gone 492 |
wrong. 493 |

T: And when you think about those 495 |
things do you relate those to the 496 |
gambling? Are they to do with that or 497 |
to do with other things? 498 |

PARTICIPANT INFORMATION SHEET

UNDERSTANDING GAMBLING PROBLEMS: CLIENT PERSPECTIVES

You are invited to participate in a study investigating the ways in which regular gamblers manage their involvement with gambling so as to avoid developing problems with it.

"Why have I been asked to take part in this study?"

Problems with gambling affect over one in a hundred people in Britain. There are various theories about why people develop difficulties with gambling. However, little is known about the ways in which regular gamblers manage their gambling so that it does not become a problem. The present study is seeking to fill this gap by interviewing people who gamble regularly, but do not have a problem. The result will be contrasted with information from individuals who have experienced problems with gambling. This will help clinicians to develop better treatments for problem gambling.

"How long will the study last?"

The study will last twelve months. However, you will only be interviewed once.

"Who is the researcher?"

The researcher is a behavioural psychotherapist working for the National Health Service in Sheffield. He has been involved in running a treatment service for people with gambling problems for the last six years. This study is being supervised by the Psychology department at Sheffield Hallam University.

"What will it involve?"

If you agree to take part in the study you will be interviewed by the researcher. The focus will be on understanding the factors you think affect your gambling. The interview will last up to two hours. The interviews will be taped. You will also be asked to complete a questionnaire regarding gambling behaviour. You will be paid expenses for taking part.

"Where will the interview take place?"

The interviews will take place at Brunswick House, 299 Glossop Road. This is an NHS service close to the town centre.

"What if I do not wish to take part?"

Participation in this study is totally voluntary. If you decide that you do not wish to take part after reading this information that is perfectly alright. If you have already made an appointment with the researcher it would be helpful if you contact him to cancel the appointment.

"What if I change my mind during the study?"

You are free to withdraw from the study at any time, without having to give a reason.

"What will happen to the information from the study?"

All information will be entirely confidential. The tape of the interview will be stored in a locked cupboard, and destroyed once the study has been completed. The interview will be typed up, and then analysed by the researcher. The results of the study will be written up to submit for publication. No information included in any report will identify you in any way.

"Will I have the opportunity to discuss my participation?"

At the end of the interview you will be given the chance to discuss the study and your involvement in it. If you wish, the researcher will arrange a follow-up appointment with you to discuss issues further.

"Can I find out about the results of the study?"

The study will be completed in Spring 2002. If you wish to receive a summary of the findings please inform the researcher at your interview.

"What if I have further questions?"

You should contact the researcher:

Tom Ricketts,
Community Health Sheffield NHS Trust
Brunswick House,
299 Glossop Road,
Sheffield S10 2HL.
Tel. (0114) 271 8676
Mobile. (07968) 300985

Or his Manager : John Davies, Director of Psychotherapy, (0114) 271 6890

CONSENT FORM

UNDERSTANDING GAMBLING PROBLEMS: CLIENT PERSPECTIVES

Please answer the following questions by circling your response.

Have you read the information sheet about this study? YES NO

Have you been able to ask questions about the study? YES NO

Have you received answers to all your questions? YES NO

Have you received enough information about this study? YES NO

Which researcher have you spoke to about this study? _____

Are you involved in any other studies? YES NO

If yes, how many?

☐

Do you understand that you are free to withdraw from this study:

At any time?

YES NO

Without giving a reason?

YES NO

Do you agree to take part in the study? YES NO

Your signature will certify that you have voluntarily decided to take part in this research study having read and understood the information in the sheet for participants. It will also certify that you have had adequate opportunity to discuss the study with an investigator and that all questions have been answered to your satisfaction.

Signature of participant: _____ Date: _____

Name (Block Letters): _____

Signature of investigator: _____ Date: _____

Please keep your copy of the consent form and the information sheet together.

Tom Ricketts, Community Health Sheffield NHS Trust, Brunswick House, 299 Glossop Road, Sheffield S10 2HL.